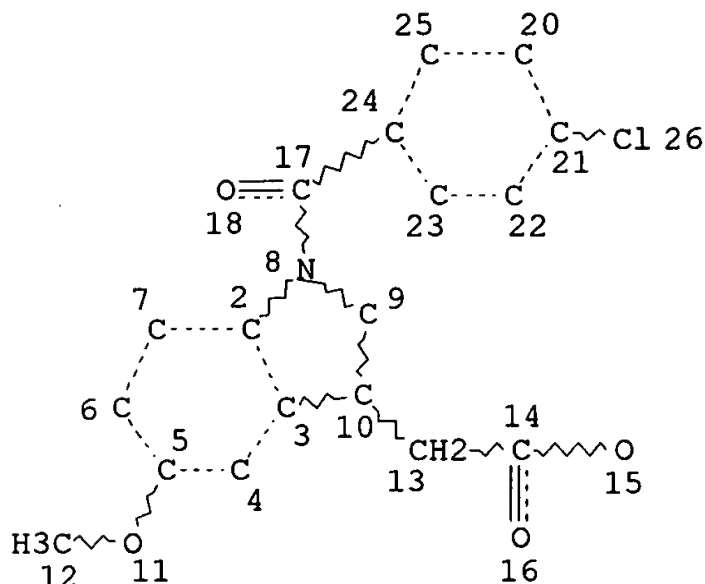


10/147770

FILE 'REGISTRY' ENTERED AT 11:07:14 ON 22 APR 2005

L1 STR



Str.

NODE ATTRIBUTES:

NSPEC IS RC AT 29
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

L2 12 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 60 ITERATIONS
SEARCH TIME: 00.00.01

12 ANSWERS

FILE 'CAPLUS' ENTERED AT 11:07:43 ON 22 APR 2005

L3 12 S L2

L3 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:64442 CAPLUS

TITLE: Evaluation of the antitumoral potential of different nitric oxide-donating non-steroidal anti-inflammatory drugs (NO-NSAIDs) on human urological tumor cell lines

AUTHOR(S): Huguenin, Sandra; Vacherot, Francis; Fleury-Feith, Jocelyne; Riffaud, Jean-Pierre; Chopin, Dominique K.; Bolla, Manlio; Jaurand, Marie-Claude

CORPORATE SOURCE: Oncogenese des Tumeurs Respiratoires et Urogenitales, Groupe de recherche INSERM E 03-37, Faculte de Medecine, Creteil, 94010, Fr.

SOURCE: Cancer Letters (Amsterdam, Netherlands) (2005), 218(2), 163-170

CODEN: CALEDQ; ISSN: 0304-3835

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Our work aimed at identifying the antitumoral potential of new nitric oxide (NO)-releasing nonsteroidal anti-inflammatory drug (NSAID) derivs. on human prostate and bladder carcinoma cell lines. Among all

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mols. tested, two sulindac derivs., NCX 1102 ((Z)-5-fluoro-2-methyl-1-[[4-(methylsulfinyl)phenyl] methylene]-1H-indene-3-acetic acid 4-(nitrooxy)butyl ester) and NCX 1105 ((Z)-5-fluoro-2-methyl-1-[[4-(methylsulfinyl)phenyl] methylene]-1H-indene-3-acetic acid 6-(nitrooxymethyl)-2-methylpyridyl ester hydrochloride), were the most cytotoxic compds. In contrast to its parent mol. sulindac, cell cycle anal. showed that NCX 1102 led to cell accumulation in the G2-M transition stage in all cell lines, and induced apoptosis in five out of the six cell lines. Thus, NO-NSAIDs may be useful for the elaboration of new therapeutic strategies in the management of bladder and prostate cancer.

IT INDEXING IN PROGRESS

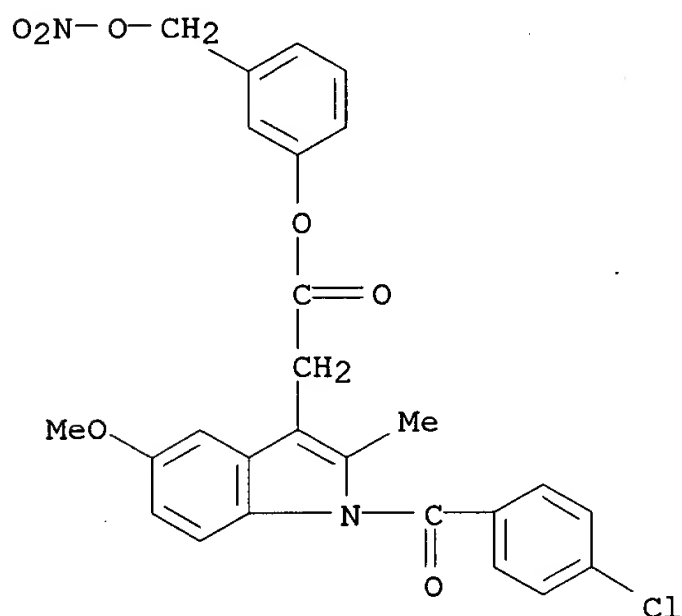
IT 204268-63-3, NCX 530

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antitumor potential of different nitric oxide-donating non-steroidal anti-inflammatory drugs (NO-NSAIDs) on human urol. tumor cell lines)

RN 204268-63-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:41217 CAPLUS

DOCUMENT NUMBER: 140:111135

TITLE: Preparation of nitrosated nonsteroidal antiinflammatory compounds

INVENTOR(S): Earl, Richard A.; Ezawa, Maiko; Fang, Xinqin; Garvey, David S.; Gaston, Ricky D.; Khanapure, Subhash P.; Letts, Gordon L.; Lin, Chia-En; Ranatunge, Ramani R.; Richardson, Stewart K.; Schroeder, Joseph D.; Stevenson, Cheri A.; Wey, Shiow-Jyi

PATENT ASSIGNEE(S): Nitromed, Inc., USA

SOURCE: PCT Int. Appl., 145 pp.

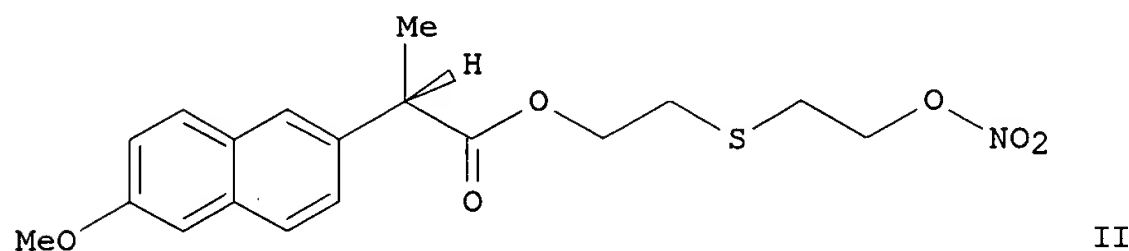
Searcher : Shears 571-272-2528

10/147770

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004004648 | A2 | 20040115 | WO 2003-US21026 | 20030703 |
| WO 2004004648 | A3 | 20041028 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2004024057 | A1 | 20040205 | US 2003-612014 | 20030703 |
| PRIORITY APPLN. INFO.: | | | US 2002-393111P | P 20020703 |
| | | | US 2002-397979P | P 20020724 |
| | | | US 2002-418353P | P 20021016 |
| | | | US 2003-449798P | P 20030226 |
| | | | US 2003-456182P | P 20030321 |

OTHER SOURCE(S): MARPAT 140:111135
 GI



AB Title compds. RnRmHC-CO-X [Rm = H, alkyl; Rn = 4-((thiophen-2-yl)carbonyl)phenyl, 3-(benzoyl)phenyl, etc.; X = Y-alkyl-aryl, etc.; Y = O, S; I] are prepared For instance, naproxen is coupled to 2,2'-thiodiethanol (CH₂Cl₂, DMAP, EDCI) and treated with Ac₂O/HNO₃ at 0° to give II. I are nitrosated nonsteroidal antiinflammatory drugs (NSAIDs) used alone or are combined with one compound that donates, transfers or releases nitric oxide, stimulates endogenous synthesis of nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor or is a substrate for nitric oxide synthase. The invention provides methods for treating inflammation, pain, fever, gastrointestinal disorders, etc.

IT **646511-22-0P**, [(1S,2S,5S,6R)-6-(Nitrooxy)-4,8-dioxabicyclo[3.3.0]octan-2-yl] 2-[1-[(4-chlorophenyl)carbonyl]-5-

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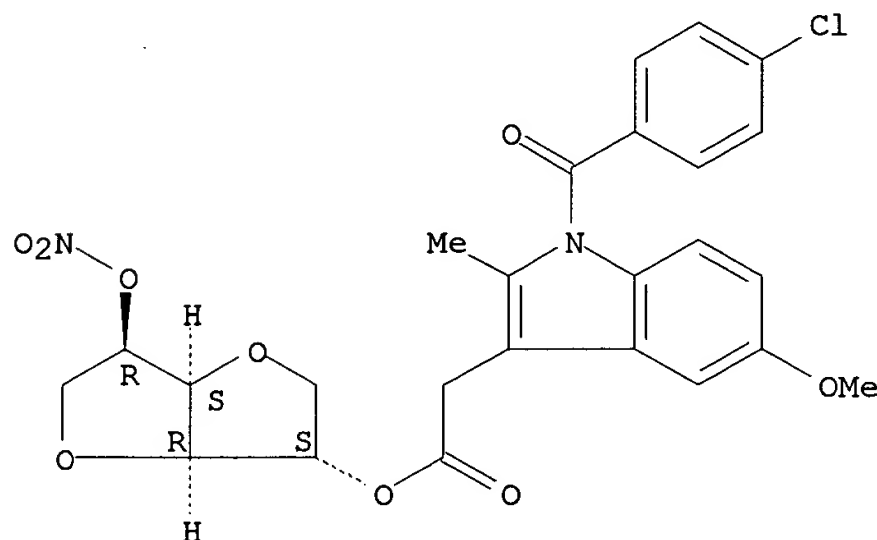
methoxy-2-methylindol-3-yl]acetate **646511-30-0P**,
(2R)-2,3-Bis(nitrooxy)propyl 2-[1-[(4-chlorophenyl)carbonyl]-5-methoxy-2-methylindol-3-yl]acetate **646511-32-2P**,
(2S)-2,3-Bis(nitrooxy)propyl 2-[1-[(4-chlorophenyl)carbonyl]-5-methoxy-2-methylindol-3-yl]acetate **646511-41-3P**,
[N-Methyl-N-[2-(nitrooxy)ethyl]carbamoyl]methyl 2-[1-[(4-chlorophenyl)carbonyl]-5-methoxy-2-methylindol-3-yl]acetate **646511-43-5P**, [N-[2-(Nitrooxy)ethyl]carbamoyl]methyl 2-[1-[(4-chlorophenyl)carbonyl]-5-methoxy-2-methylindol-3-yl]acetate
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of naproxen-derived nitrosated antiinflammatory compds.)

RN 646511-22-0 CAPLUS

CN D-Glucitol, 1,4:3,6-dianhydro-, 2-[1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetate] 5-nitrate (9CI) (CA INDEX NAME)

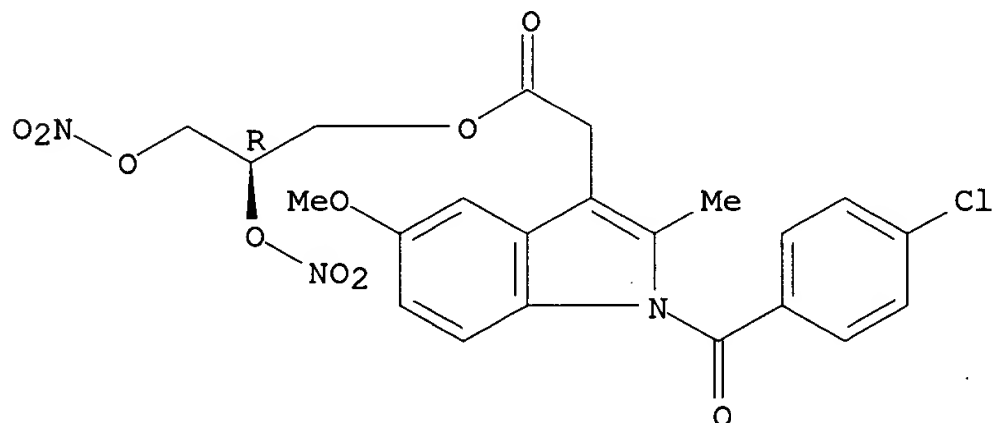
Absolute stereochemistry.



RN 646511-30-0 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, (2R)-2,3-bis(nitrooxy)propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

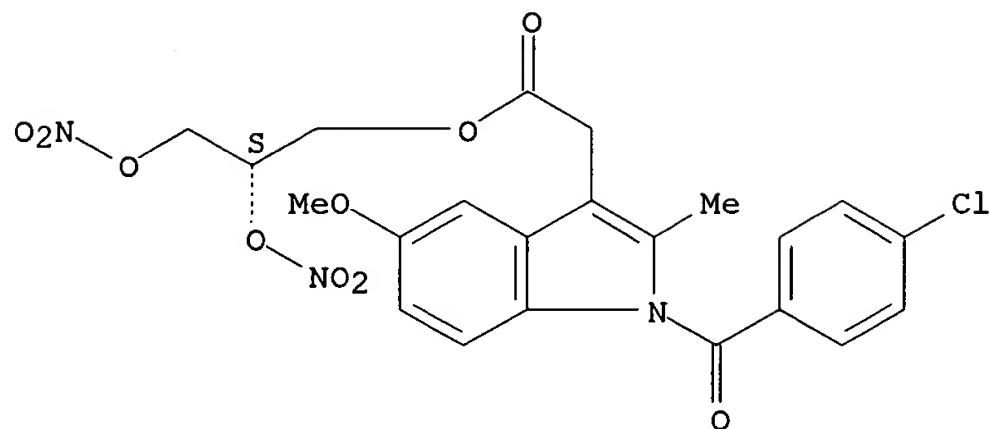


RN 646511-32-2 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, (2S)-2,3-bis(nitrooxy)propyl ester (9CI) (CA INDEX NAME)

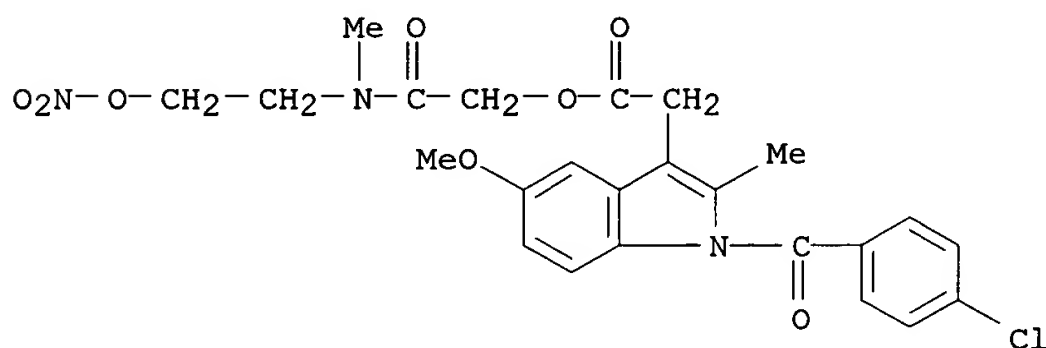
Searcher : Shears 571-272-2528

Absolute stereochemistry.



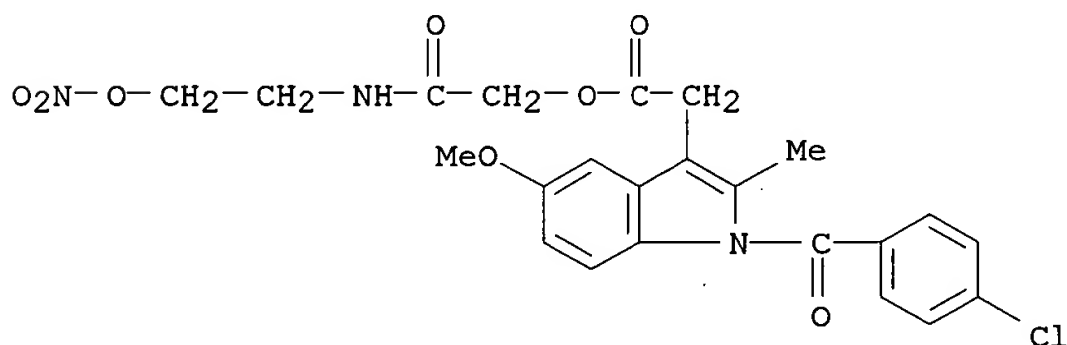
RN 646511-41-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
2-[methyl[2-(nitrooxy)ethyl]amino]-2-oxoethyl ester (9CI) (CA INDEX
NAME)



RN 646511-43-5 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
2-[[2-(nitrooxy)ethyl]amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:818296 CAPLUS

DOCUMENT NUMBER: 139:302040

TITLE: Nitrooxy derivatives of antiinflammatory/analgesic
compounds for the treatment of arthritis

INVENTOR(S): Del Soldato, Piero

10/147770

PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2003084550 | A1 | 20031016 | WO 2003-EP3183 | 20030327 |
| W: | AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, SG, TN, TT, UA, US, UZ, VN, YU, ZA | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1492543 | A1 | 20050105 | EP 2003-720377 | 20030327 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | |
| PRIORITY APPLN. INFO.: | | | IT 2002-MI773 | A 20020411 |
| | | | WO 2003-EP3183 | W 20030327 |

OTHER SOURCE(S): MARPAT 139:302040

AB Antiinflammatory and/or antiinflammatory/analgesic compds. having the formula A(B)b0(C)c0-N(O)s [A contains radical of nonsteroidal antiinflammatory or nonsteroidal antiinflammatory/analgesic drug; B, C = bivalent linking group; s = 1, 2; b0, c0 = 0, 1 (with proviso)], and salts thereof, are disclosed for use in the treatment of arthritis.

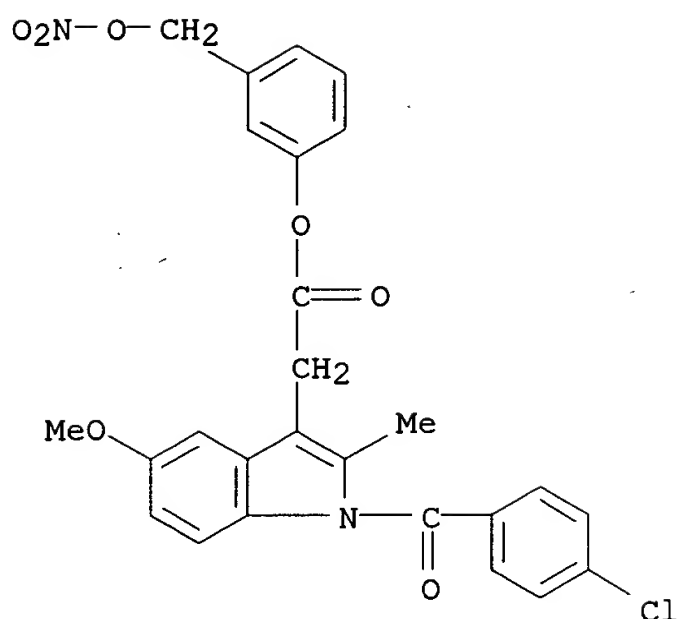
IT 204268-63-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nitrooxy derivs. of antiinflammatory/analgesic compds. for treatment of arthritis)

RN 204268-63-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2002:293592 CAPLUS
 DOCUMENT NUMBER: 136:325420
 TITLE: Drugs for diabetes, especially type 2, comprising an antiinflammatory or analgesic drug, selected bivalent linkers, and a nitrate ester
 INVENTOR(S): Del Soldato, Piero
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002030867 | A2 | 20020418 | WO 2001-EP11665 | 20011009 |
| WO 2002030867 | A3 | 20020725 | | |
| W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1319201 | B1 | 20030926 | IT 2000-MI2201 | 20001012 |
| CA 2425655 | AA | 20020418 | CA 2001-2425655 | 20011009 |
| AU 2002014006 | A5 | 20020422 | AU 2002-14006 | 20011009 |
| EP 1324974 | A2 | 20030709 | EP 2001-982414 | 20011009 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2004511456 | T2 | 20040415 | JP 2002-534256 | 20011009 |

Searcher : Shears 571-272-2528

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US 2004023890
PRIORITY APPLN. INFO.:

A1 20040205

US 2003-398511
IT 2000-MI2201

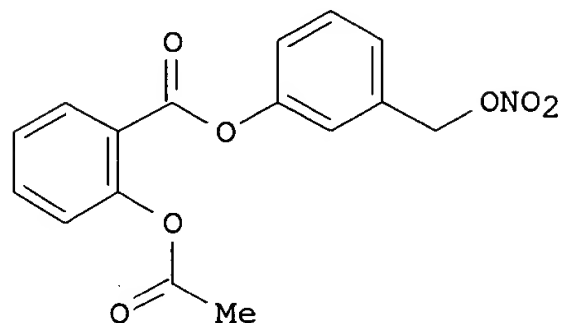
20030411
A 20001012

WO 2001-EP11665

W 20011009

OTHER SOURCE(S):
GI

MARPAT 136:325420



II

AB Useful for the treatment of diabetes, particularly type 2, are compds. or salts thereof, having the following general formula A-(B)_n-(C)_m-NO₂ [I; wherein A = radical of a drug having an antiinflammatory or analgesic activity; B = bivalent linking group wherein the precursor must meet certain tests described in the application; C = another defined bivalent linking group; n and m = 0 or 1, provided that (n + m) = 1 or 2]. I can be used in conjunction with other antidiabetic drugs, particularly insulin. I increase the direct antidiabetic effect of insulin, and reduce complications of diabetes, particularly vascular diseases, retinopathies, neuropathies, etc.. The values of n and m, i.e., the presence or absence of bivalent linkers B and C, alone or in combination, are based on performance of the precursors of the linkers in certain tests (no data). These tests are designated as follows: (test 4A): inhibition by > 15% of hemolysis of rat erythrocytes induced by cumene hydroperoxide; (test 5): inhibition of radical production by ≥ 50% in the oxidative degradation of . desoxyribose in aqueous Fe²⁺(NH₄)₂(SO₄)₂/thiobarbituric acid solution; and (test 4): inhibition by ≥ 50% of DPPH-induced radical production in MeOH solution. For instance, acetylsalicylic acid chloride was esterified with 3-(hydroxymethyl)phenol (80%), followed by nitration of the resultant Ph ester with HNO₃/H₂SO₄ (82%), to give invention compound II, which is thus the 3-(nitroxymethyl)phenyl ester of aspirin. When tested on isolated aorta from insulin-resistant rats, compound II at a concentration of 10⁻⁴ M gave 70% vasorelaxation, relative to non-insulin-resistant controls. This effect was unchanged by the presence or absence of the irreversible NO synthetase inhibitor LNNA. In contrast, both Na nitroprussiate and the indomethacin analog of II, known NO donors, were inactive, and the antidiabetic drug metformin was inactivated by LNNA.

IT **204268-63-3P**, 1-(4-Chlorobenzoyl)-5-methoxy-2-methyl-3-indoleacetic acid 3-(nitroxymethyl)phenyl ester

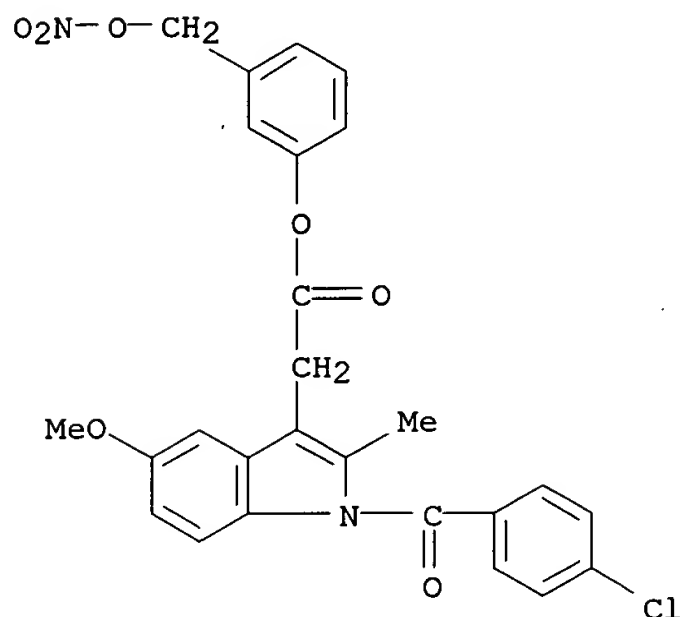
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(comparison drug candidate; preparation of antidiabetic agents comprising antiinflammatory or analgesic drugs, selected bivalent linkers, and nitrate esters)

RN 204268-63-3 CAPLUS

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CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:659177 CAPLUS
DOCUMENT NUMBER: 136:334926
TITLE: Lack of gastric toxicity of nitric oxide-releasing
indomethacin, NCX-530, in experimental animals
AUTHOR(S): Takeuchi, Koji; Mizoguchi, Hiroyuki; Araki, Hideo;
Komoike, Yusaku; Suzuki, Keizo
CORPORATE SOURCE: Department of Pharmacology and Experimental
Therapeutics, Kyoto Pharmaceutical University,
Kyoto, 607-8414, Japan
SOURCE: Digestive Diseases and Sciences (2001), 46(8),
1805-1818
CODEN: DDSCDJ; ISSN: 0163-2116
PUBLISHER: Kluwer Academic/Plenum Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of a NO releasing derivative of indomethacin (NCX-530) on
gastric ulcerogenic and healing responses were evaluated in rats and
mice, in comparison with the parent compound indomethacin. Indomethacin
(per os) produced damage in the rat stomach in a dose-dependent
manner. NCX-530 (per os) itself, however, was not ulcerogenic and
even showed a dose-dependent protection against HCl/EtOH-induced
lesions in the rat stomach. Likewise, indomethacin given repeatedly
delayed healing of gastric ulcers induced in mice by thermal
cauterization, while NCX-530 did not affect the healing response and
significantly promoted the healing as compared to indomethacin. These
actions of NCX-530 were mimicked by the combined administration of a
NO donor NOR-3 with indomethacin. The amount of NO metabolites was
increased in both the gastric contents and blood serum when NCX-530,
but not indomethacin, was given in pylorus-ligated stomachs. Neither
indomethacin nor NCX-530 influenced gastric acid secretion and
trans-mucosal p.d., yet NCX-530 caused a marked increase of gastric
mucosal blood flow, which was preventable by carboxy-PTIO, a scavenger
of NO. Gastric motility was increased by indomethacin but not by
NCX-530. In addition, NCX-530 inhibited PGE2 generation in both the

Searcher : Shears 571-272-2528

intact and ulcerated gastric mucosa and showed antiinflammatory action on carrageenan-induced rat paw edema, as effectively as indomethacin. These results suggest that unlike indomethacin, NCX-530 caused neither an irritating action on the stomach nor healing impairment effect on the preexisting gastric ulcers, but conferred gastric protection against HCl/EtOH, despite causing cyclooxygenase inhibition and antiinflammatory action, as effectively as indomethacin. This NO-releasing indomethacin, probably by releasing NO, exerts protective influences, such as an increase of gastric mucosal blood flow, that counteract the potential damaging effects of cyclooxygenase inhibition by indomethacin.

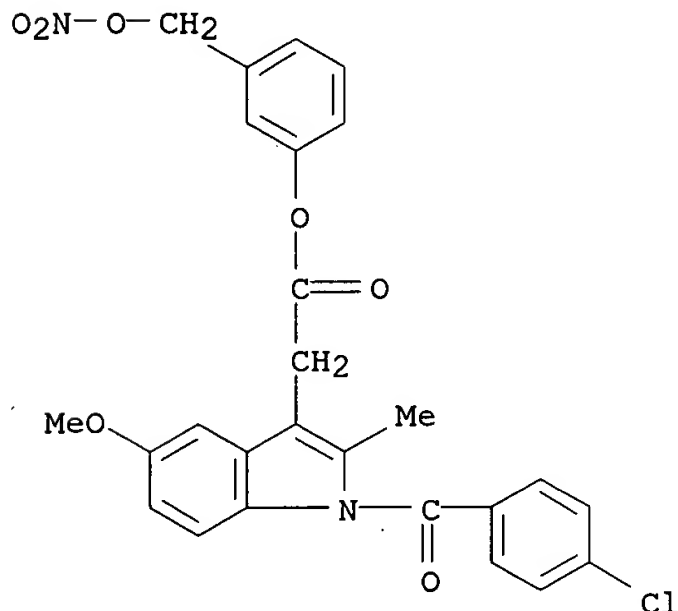
IT 204268-63-3, NCX 530

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(gastric protection of NO-releasing indomethacin, NCX-530)

RN 204268-63-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:136240 CAPLUS

DOCUMENT NUMBER: 135:162327

TITLE: Lack of small intestinal ulcerogenecity of nitric oxide-releasing indomethacin, NCX-530, in rats

AUTHOR(S): Mizoguchi, H.; Hase, S.; Tanaka, A.; Takeuchi, K.

CORPORATE SOURCE: Department of Pharmacology and Experimental Therapeutics, Kyoto Pharmaceutical University, Kyoto, 607-8414, Japan

SOURCE: Alimentary Pharmacology and Therapeutics (2001), 15(2), 257-267

CODEN: APTHEN; ISSN: 0269-2813

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Aim: To evaluate the intestinal ulcerogenic property of nitric

oxide-releasing indomethacin (NCX-530) in the rat in comparison with indomethacin. Methods: Animals were given indomethacin or NCX-530 s.c. and killed 24 h later for macroscopic examination of the small intestine. Results: A single administration of indomethacin (10 mg/kg) provoked damage, mainly in the jejunum and ileum, accompanied by an increase in myeloperoxidase and inducible nitric oxide synthase activities as well as bacterial translocation. NCX-530 at an equimolar dose (14.2 mg/kg) caused no gross damage in the small intestine nor any significant change in inducible nitric oxide synthase and myeloperoxidase activities or bacterial translocation. NOR-3, the nitric oxide donor (6.0 mg/kg), when administered s.c. together with indomethacin, significantly prevented the occurrence of intestinal lesions and other mucosal changes. Indomethacin reduced mucus and fluid secretions in the small intestine while both NCX-530 and NOR-3 enhanced these secretions. NCX-530 reduced the mucosal prostaglandin E2 contents and exhibited an anti-inflammatory action against carrageenan-induced paw edema, with equal effectiveness to indomethacin. Conclusion: NCX-530 does not cause intestinal damage, despite inhibiting cyclooxygenase activity. The reduced intestinal toxicity of NCX-530 may be attributable to inhibition of enterobacterial translocation, partly by increasing the mucus and fluid secretions mediated by nitric oxide released from this compound

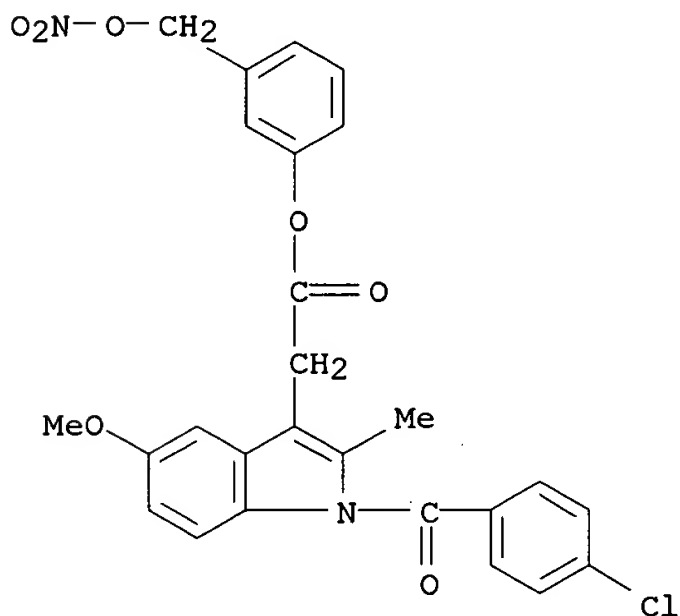
IT 204268-63-3

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(lack of small intestinal ulcerogenecity of NCX-530 in rats)

RN 204268-63-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:742053 CAPLUS

DOCUMENT NUMBER: 133:310142

TITLE: Synthesis, activity and formulations of

Searcher : Shears 571-272-2528

10/147770

pharmaceutical compounds for treatment of
oxidative stress and/or endothelial dysfunction

INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2000061537 | A2 | 20001019 | WO 2000-EP3234 | 20000411 |
| WO 2000061537 | A3 | 20010927 | | |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1311924 | B1 | 20020320 | IT 1999-MI753 | 19990413 |
| CA 2370412 | AA | 20001019 | CA 2000-2370412 | 20000411 |
| BR 2000009702 | A | 20020108 | BR 2000-9702 | 20000411 |
| EP 1169294 | A2 | 20020109 | EP 2000-925203 | 20000411 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002541233 | T2 | 20021203 | JP 2000-610814 | 20000411 |
| NZ 514267 | A | 20040625 | NZ 2000-514267 | 20000411 |
| RU 2237657 | C2 | 20041010 | RU 2001-127576 | 20000411 |
| AU 778989 | B2 | 20041223 | AU 2000-44001 | 20000411 |
| ZA 2001008127 | A | 20030103 | ZA 2001-8127 | 20011003 |
| NO 2001004927 | A | 20011213 | NO 2001-4927 | 20011010 |
| US 6869974 | B1 | 20050322 | US 2001-926326 | 20011015 |
| PRIORITY APPLN. INFO.: | | | IT 1999-MI753 | A 19990413 |
| | | | WO 2000-EP3234 | W 20000411 |

OTHER SOURCE(S): MARPAT 133:310142

AB Compds. A-B-C-N(O)s and A-Cl[N(O)s]-B1 or their salts [s is an integer 1 or 2, preferably s = 2; A is the radical of a drug and is such as to meet the pharmacol. tests reported in the description; C and Cl are two bivalent radicals; the precursors of the radicals B and B1 are such as to meet the pharmacol. test reported in the description] were prepared for use as pharmaceuticals. Thus, (S,S)-N-acetyl-S-(6-methoxy- α -methyl-2-naphthalenylacetyl)cysteine 4-nitroxybutyl ester was prepared (NCX 2101) from naproxene and N-acetylcysteine in the first of 28 synthetic examples given. Pharmacol. test examples and tabular data are also given.

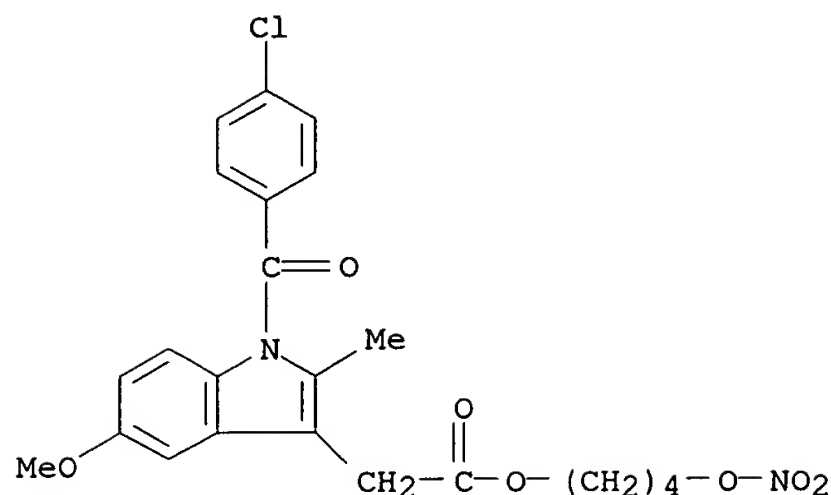
IT **164790-49-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (synthesis, activity and formulations of pharmaceutical compds. for treatment of oxidative stress and/or endothelial dysfunction)

RN 164790-49-2 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 4-(nitrooxy)butyl ester (9CI) (CA INDEX NAME)

Searcher : Shears 571-272-2528

10/147770



L3 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2000:628123 CAPLUS
 DOCUMENT NUMBER: 133:207818
 TITLE: Preparation of nitroxymethylpyridines and related compounds having antiinflammatory, analgesic and antithrombotic activity
 INVENTOR(S): Benedini, Francesca; Del Soldato, Piero
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 80 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2000051988 | A1 | 20000908 | WO 2000-EP1454 | 20000223 |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1308633 | B1 | 20020109 | IT 1999-MI413 | 19990302 |
| CA 2361164 | AA | 20000908 | CA 2000-2361164 | 20000223 |
| EP 1154999 | A1 | 20011121 | EP 2000-909234 | 20000223 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| BR 2000008582 | A | 20020213 | BR 2000-8582 | 20000223 |
| JP 2002538142 | T2 | 20021112 | JP 2000-602215 | 20000223 |
| AU 770642 | B2 | 20040226 | AU 2000-31588 | 20000223 |
| RU 2240997 | C2 | 20041127 | RU 2001-124271 | 20000223 |
| ZA 2001006650 | A | 20021113 | ZA 2001-6650 | 20010813 |
| US 6613784 | B1 | 20030902 | US 2001-926095 | 20010830 |
| PRIORITY APPLN. INFO.: | | | IT 1999-MI413 | A 19990302 |
| | | | WO 2000-EP1454 | W 20000223 |

Searcher : Shears 571-272-2528

10/147770

OTHER SOURCE(S): MARPAT 133:207818

AB Organic or inorg. salts of AX1N(O)z [A = R(COXu)t; t = 0, 1; u = 0, 1; X = O, NH, NR1c; R1c = alkyl; R = specified aryl moiety; X1 = (CR1R2)aY(CR3R4)bO; R1-R4 = H, alkyl; a = 0-3; b = 1-3; Y = (aromatic) ring containing ≥ 1 salifiable N atom], were prepared Thus, 2-acetylbenzoic acid 6-chloromethyl-2-methylpyridinyl ester (preparation given) was heated with AgNO3 in MeCN at 80° for 30 h to give 2-acetylbenzoic acid 6-nitroxymethyl-2-methylpyridinyl ester. The HCl salt of the latter (NCX 4050) at 10-5 M gave 80% inhibition of rabbit aorta contraction.

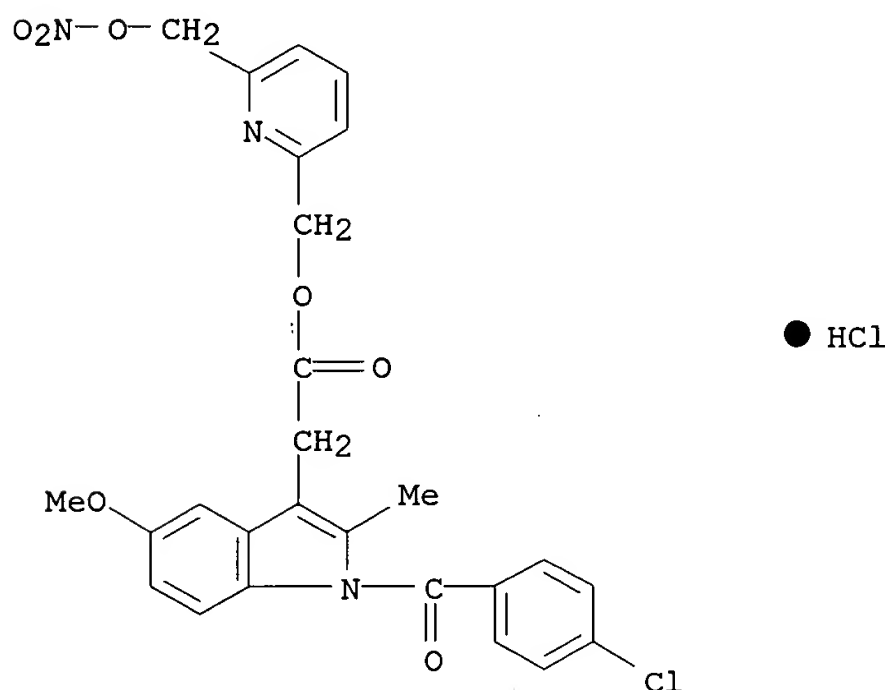
IT 290335-31-8P 290335-33-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nitroxymethylpyridines and related compds. having antiinflammatory, analgesic and antithrombotic activity)

RN 290335-31-8 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, [6-[(nitrooxy)methyl]-2-pyridinyl]methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



RN 290335-33-0 CAPLUS

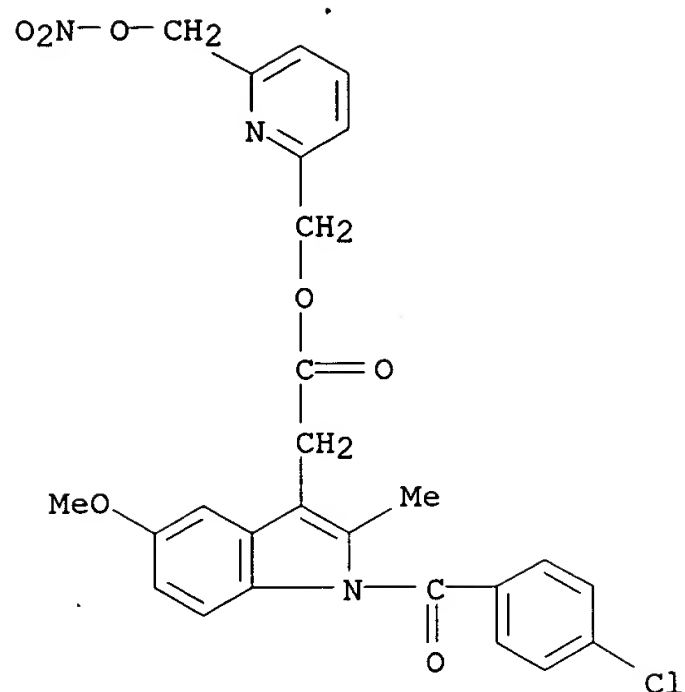
CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, [6-[(nitrooxy)methyl]-2-pyridinyl]methyl ester, mononitrate (9CI) (CA INDEX NAME)

CM 1

CRN 290335-32-9

CMF C26 H22 Cl N3 O7

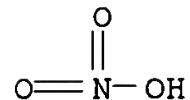
10/147770



CM 2

CRN 7697-37-2

CMF H N O3

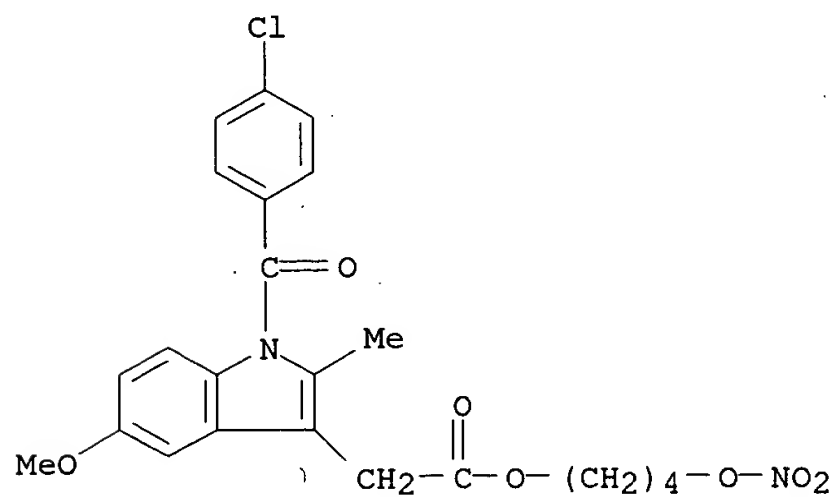


IT 164790-49-2P 290335-34-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of nitroxymethylpyridines and related compds. having
antiinflammatory, analgesic and antithrombotic activity)

RN 164790-49-2 CAPLUS

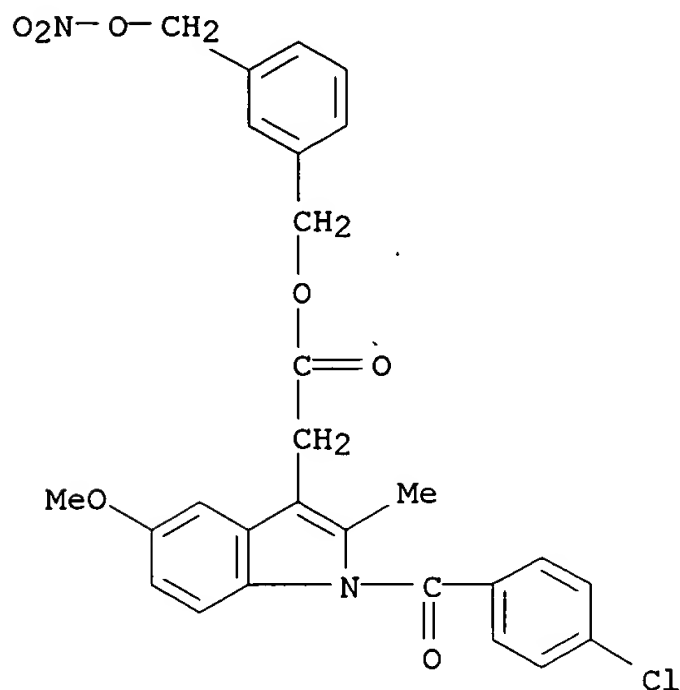
CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
4-(nitrooxy)butyl ester (9CI) (CA INDEX NAME).



Searcher : Shears 571-272-2528

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RN 290335-34-1 CAPLUS
CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
[3-[(nitrooxy)methyl]phenyl]methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L3 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:535099 CAPLUS
DOCUMENT NUMBER: 133:152268
TITLE: Synthesis method of (nitroxymethyl)phenyl esters
of aspirin derivatives
INVENTOR(S): Del Soldato, Piero; Garufi, Michele
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2000044705 | A1 | 20000803 | WO 2000-EP353 | 20000118 |
| W: | AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| IT 1307928 | B1 | 20011129 | IT 1999-MI134 | 19990126 |
| CA 2361454 | AA | 20000803 | CA 2000-2361454 | 20000118 |
| BR 2000007643 | A | 20011016 | BR 2000-7643 | 20000118 |
| EP 1147074 | A1 | 20011024 | EP 2000-904925 | 20000118 |
| EP 1147074 | B1 | 20050323 | | |

Searcher : Shears 571-272-2528

10/147770

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO

| | | | | |
|------------------------|----|----------|----------------|------------|
| JP 2002535380 | T2 | 20021022 | JP 2000-595962 | 20000118 |
| AU 766497 | B2 | 20031016 | AU 2000-26645 | 20000118 |
| RU 2232747 | C2 | 20040720 | RU 2001-120697 | 20000118 |
| ZA 2001005705 | A | 20021011 | ZA 2001-5705 | 20010711 |
| US 6512137 | B1 | 20030128 | US 2001-868932 | 20010717 |
| PRIORITY APPLN. INFO.: | | | IT 1999-MI134 | A 19990126 |
| | | | WO 2000-EP353 | W 20000118 |

OTHER SOURCE(S): MARPAT 133:152268

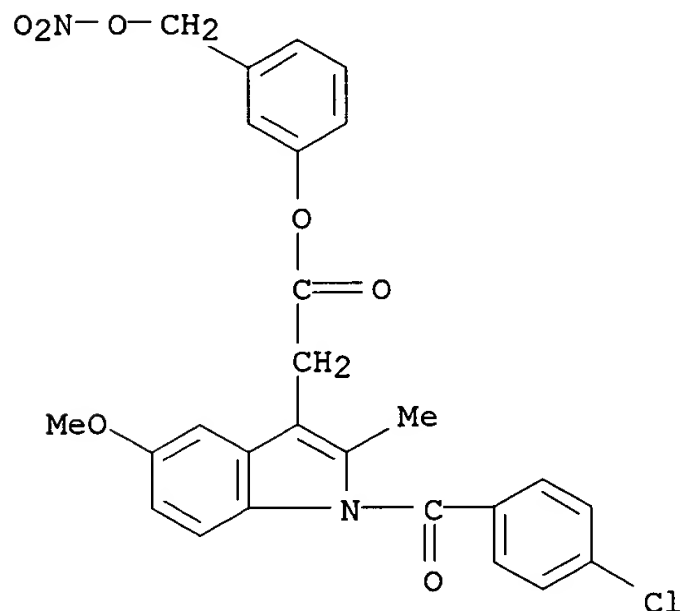
AB RCO₂H [R = substituted Ph, substituted (phenylcarbonyloxy)phenyl, etc.] were manufactured by (A) esterification of acyl halides RCOX (X = Cl, Br; R as above) with an isomer of hydroxybenzaldehyde in the presence of a base, (B) reduction of aldehyde group of the intermediate ester to give a (hydroxymethyl)phenyl ester, (C) halogenation of the latter ester, e.g., with SOCl₂ to obtain the corresponding (chloromethyl)phenyl ester, and (D) reaction of the chlorinated product with an inorg. nitrate salt, e.g., AgNO₃. For example, 2-AcOC₆H₄CO₂C₆H₄(CH₂ONO₂)-3 was prepared as described above.

IT **204268-63-3P**

RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of (nitroxymethyl)phenyl esters of aspirin derivs.)

RN 204268-63-3 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L3 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:221441 CAPLUS

DOCUMENT NUMBER: 128:226234

TITLE: Nonsteroidal anti-inflammatory agents capable of
releasing nitric oxide, their preparing method and
use

INVENTOR(S): Cai, Xiong; Qian, Changgeng

Searcher : Shears 571-272-2528

10/147770

PATENT ASSIGNEE(S): Cai, Xiong, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 22
pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| CN 1144092 | A | 19970305 | CN 1995-109791 | 19950825 |
| PRIORITY APPLN. INFO.: | | | CN 1995-109791 | 19950825 |

AB The present invention provides a group of nonsteroidal anti-inflammatory drugs (NSAID) capable of releasing nitric oxide and their nitrates. The NSAID include aspirin, indomethacin, naproxen, brufen, pirofen, phenol pirofen, flurbiprofen, ketoprofen, and diclofenac sodium and can be extensively used as antipyretics, analgesics, and antiinflammatory for prevention and treatment of angiocardiopathy and cerebrovascular diseases. The new NSAID nitrates can release nitric oxide in vivo and can reduce the toxicity of NSAID on the digestive tract.

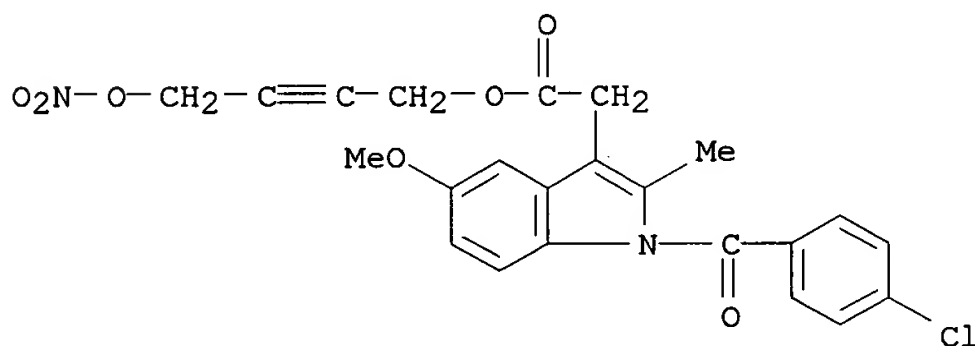
IT 204633-03-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(nonsteroidal anti-inflammatory agents capable of releasing nitric oxide, their preparing method and use)

RN 204633-03-4 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 4-(nitrooxy)-2-butyryl ester (9CI) (CA INDEX NAME)



L3 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:175910 CAPLUS

DOCUMENT NUMBER: 128:217188

TITLE: Preparation of nitric ester derivatives and their use in urinary incontinence and other diseases

INVENTOR(S): Del Soldato, Piero; Sanniccolo', Francesco

PATENT ASSIGNEE(S): Nicox S.A., Fr.; Del Soldato, Piero; Sanniccolo', Francesco

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

Searcher : Shears 571-272-2528

10/147770

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9809948 | A2 | 19980312 | WO 1997-EP4774 | 19970902 |
| WO 9809948 | A3 | 19980604 | | |
| W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2264081 | AA | 19980312 | CA 1997-2264081 | 19970902 |
| AU 9743010 | A1 | 19980326 | AU 1997-43010 | 19970902 |
| AU 729533 | B2 | 20010201 | | |
| EP 931065 | A2 | 19990728 | EP 1997-919021 | 19970902 |
| EP 931065 | B1 | 20040728 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| BR 9712008 | A | 19990824 | BR 1997-12008 | 19970902 |
| CN 1234792 | A | 19991110 | CN 1997-199130 | 19970902 |
| JP 2000517332 | T2 | 20001226 | JP 1998-512226 | 19970902 |
| RU 2210563 | C2 | 20030820 | RU 1999-106676 | 19970902 |
| EP 1437132 | A1 | 20040714 | EP 2004-101544 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| AT 271858 | E | 20040815 | AT 1997-919021 | 19970902 |
| EP 1473288 | A1 | 20041103 | EP 2004-102724 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| ES 2224237 | T3 | 20050301 | ES 1997-919021 | 19970902 |
| AU 764127 | B2 | 20030814 | AU 2001-38954 | 20010427 |
| US 2004082652 | A1 | 20040429 | US 2003-686907 | 20031017 |
| PRIORITY APPLN. INFO.: | | | IT 1996-MI1821 | A 19960904 |
| | | | AU 1997-43010 | A3 19970902 |
| | | | EP 1997-919021 | A3 19970902 |
| | | | WO 1997-EP4774 | W 19970902 |
| | | | US 1999-147770 | A3 19990428 |

OTHER SOURCE(S): MARPAT 128:217188

AB R(COX)tX1NO2 [I; R = e.g., residue of non-steroidal antiinflammatory agent; X = O or (alkyl)imino; X1 = e.g., ZCH2O; Z = 1,3-phenylene], displaying cyclooxygenase inhibiting and myorelaxing effect related to opening of Ca channels and/or release of NO in lower urinary tract, were prepared Thus, flufenamic acid was esterified by 3-(HO)C6H4CH2ONO2 to give 3-(F3C)C6H4NHZ1CO2C6H4(CH2ONO2)-3 (Z1 = 1,2-phenylene). Data for biol. activity of I were given.

IT **204268-63-3P**

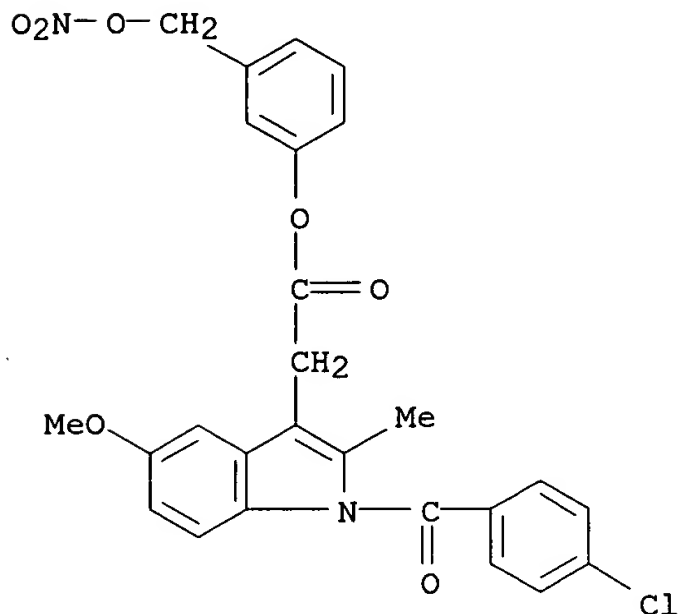
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nitric ester derivs. and their use in urinary

Searcher : Shears 571-272-2528

10/147770

incontinence and other diseases)
 RN 204268-63-3 CAPLUS
 CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-,
 3-[(nitrooxy)methyl]phenyl ester (9CI) (CA INDEX NAME)



L3 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1995:667266 CAPLUS
 DOCUMENT NUMBER: 123:82961
 TITLE: Preparation of organic nitrate esters having
 antiinflammatory and/or analgesic activity
 INVENTOR(S): Del Soldato, Piero
 PATENT ASSIGNEE(S): Nicox Ltd., Ire.
 SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

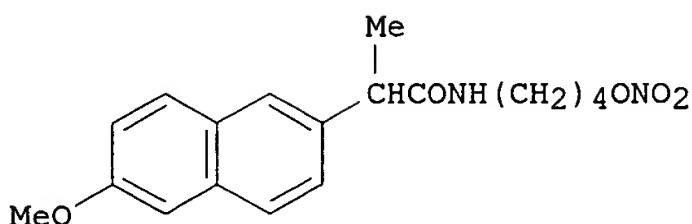
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9509831 | A1 | 19950413 | WO 1994-EP3182 | 19940923 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| GB 2283238 | A1 | 19950503 | GB 1993-20599 | 19931006 |
| GB 2283238 | B2 | 19971126 | | |
| CA 2173582 | AA | 19950413 | CA 1994-2173582 | 19940923 |
| AU 9478092 | A1 | 19950501 | AU 1994-78092 | 19940923 |
| AU 678063 | B2 | 19970515 | | |
| EP 722434 | A1 | 19960724 | EP 1994-928801 | 19940923 |
| EP 722434 | B1 | 19980729 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | |
| HU 74446 | A2 | 19961230 | HU 1996-874 | 19940923 |
| HU 218923 | B | 20001228 | | |

Searcher : Shears 571-272-2528

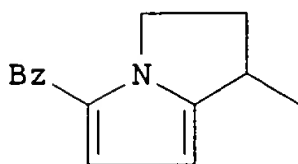
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| BR 9407749 | A | 19970212 | BR 1994-7749 | 19940923 |
| JP 09503214 | T2 | 19970331 | JP 1994-510585 | 19940923 |
| AT 168986 | E | 19980815 | AT 1994-928801 | 19940923 |
| ES 2120070 | T3 | 19981016 | ES 1994-928801 | 19940923 |
| RU 2136653 | C1 | 19990910 | RU 1996-108907 | 19940923 |
| US 5700947 | A | 19971223 | US 1996-624508 | 19960405 |
| US 5780495 | A | 19980714 | US 1997-902570 | 19970729 |
| PRIORITY APPLN. INFO.: | | | GB 1993-20599 | A 19931006 |
| | | | IT 1994-MI916 | A 19940510 |
| | | | WO 1994-EP3182 | W 19940923 |
| | | | US 1996-624508 | A3 19960405 |

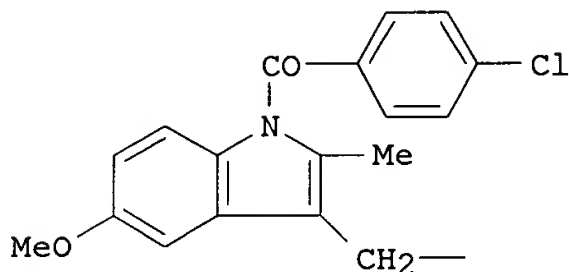
OTHER SOURCE(S): CASREACT 123:82961; MARPAT 123:82961
GI



Q1=



Q2=



AB The title compds. MCOY[C(A)(B)]nONO2 [A, B = H, (un)branched alkyl; M = Q1, Q2, 2-(6-methoxy)naphthyl, etc.; n = 1-10], useful as analgesics, antiinflammatory agents, and blood platelet aggregation inhibitors, are prepared. Thus, 2-(6-methoxy-2-naphthyl)propionic acid was converted into its Na carboxylate salt with NaOEt, the salt condensed with 1-bromo-4-chlorobutane, and the 4-chlorobutyl 2-(6-methoxy-2-naphthyl)propionate intermediate nitrated by reaction with AgNO3, producing the 4-nitratobutyl ester, II.

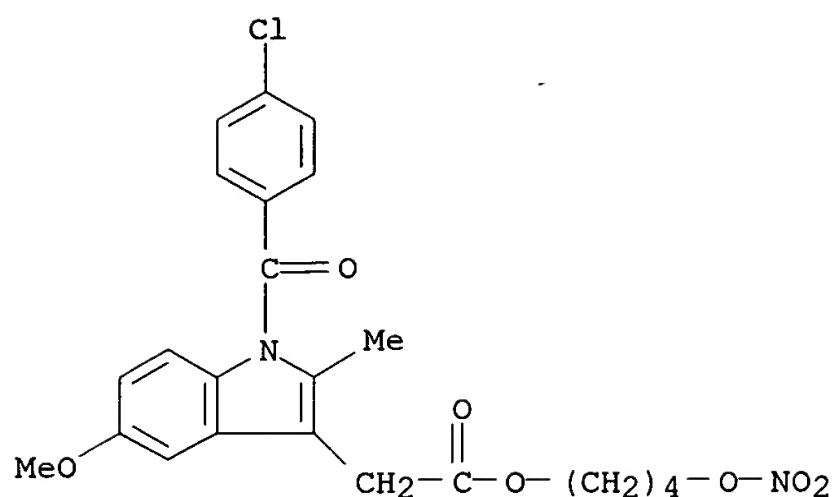
IT 164790-49-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of organic nitrate esters having antiinflammatory and/or analgesic activity)

RN 164790-49-2 CAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-, 4-(nitrooxy)butyl ester (9CI) (CA INDEX NAME)

10/147770



L4 FILE 'CAOLD' ENTERED AT 11:08:49 ON 22 APR 2005
0 S L2

L5 FILE 'USPATFULL' ENTERED AT 11:08:58 ON 22 APR 2005
9 S L2

L5 ANSWER 1 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2005:71127 USPATFULL
TITLE: Pharmaceutical compounds
INVENTOR(S): Del Soldato, Piero, Milan, ITALY
PATENT ASSIGNEE(S): Nicox S.A., Paris, FRANCE (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|-----------------------|
| PATENT INFORMATION: | US 6869974 | B1 | 20050322 |
| | WO 2000061537 | | 20001019 |
| APPLICATION INFO.: | US 2001-926326 | | 20011015 (9) |
| | WO 2000-EP3234 | | 20000411 |
| | | | 20011015 PCT 371 date |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | IT 1999-MI753 | 19990413 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Raymond, Richard L. | |
| LEGAL REPRESENTATIVE: | Arent Fox PLLC | |
| NUMBER OF CLAIMS: | 7 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 0 Drawing Figure(s); 0 Drawing Page(s) | |
| LINE COUNT: | 2411 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds or their salts having general formulas (I) and (II):
wherein s is an integer equal to 1 or 2, A is the radical of a drug
that satisfies certain pharmacological tests, C and C.sub.1 are
bivalent radicals, and precursors of the radicals B and B.sub.1
satisfy certain pharmacological tests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2004:108250 USPATFULL

Searcher : Shears 571-272-2528

10/147770

TITLE: Nitric ester derivatives and their use in treating
gastrointestinal tumors
INVENTOR(S): Del Soldato, Piero, Monza, ITALY
Sanniccolo, Francesco, Milano, ITALY
PATENT ASSIGNEE(S): Nicox S.A. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2004082652 | A1 | 20040429 |
| APPLICATION INFO.: | US 2003-686907 | A1 | 20031017 (10) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1999-147770, filed on 28 Apr 1999, PENDING A 371 of International Ser. No. WO 1997-EP4774, filed on 2 Sep 1997, UNKNOWN | | |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | IT 1996-MI1821 | 19960904 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | ARENT FOX KINTNER PLOTKIN & KAHN, 1050 CONNECTICUT AVENUE, N.W., SUITE 400, WASHINGTON, DC, 20036 | |
| NUMBER OF CLAIMS: | 6 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1303 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Use of the following groups of compounds or their compositions for
the preparation of medicaments for the treatment of gastrointestinal
tumors, such compounds having general formula: A-X.sub.1--NO.sub.2
or their salts, where A=R(COX).sub.t and where t is an integer 0 or
1; X.dbd.O, NH, NR.sub.1c, where R.sub.1c is a linear or branched
alkyl having from 1 to 10 C atoms; R is (IA) where t=1 and X.sub.1
is equal to --YO-- where Y is a C.sub.1-C.sub.20 alkylene,
C.sub.5-C.sub.7 cycloalkyl or oxyalkyl derivatives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2004:31915 USPATFULL

TITLE: Nitrosated nonsteroidal antiinflammatory compounds,
compositions and methods of use related
applications

INVENTOR(S): Earl, Richard A., Westford, MA, UNITED STATES
Ezawa, Maiko, Acton, MA, UNITED STATES
Fang, Xinqin, Lexington, MA, UNITED STATES
Garvey, David S., Dover, MA, UNITED STATES
Gaston, Ricky D., Malden, MA, UNITED STATES
Khanapure, Subhash P., Clinton, MA, UNITED STATES
Letts, L. Gordon, Dover, MA, UNITED STATES
Lin, Chia-En, Burlington, MA, UNITED STATES
Ranatunga, Ramani R., Lexington, MA, UNITED STATES
Richardson, Stewart K., Tolland, CT, UNITED STATES
Schroeder, Joseph D., Minneapolis, MN, UNITED
STATES
Stevenson, Cheri A., Haverhill, MA, UNITED STATES
Wey, Shiow-Jyi, Woburn, MA, UNITED STATES
PATENT ASSIGNEE(S): NitroMed, Inc. (U.S. corporation)

| NUMBER | KIND | DATE |
|--------|------|------|
| ----- | | |

Searcher : Shears 571-272-2528

10/147770

PATENT INFORMATION: US 2004024057 A1 20040205
APPLICATION INFO.: US 2003-612014 A1 20030703 (10)

| | NUMBER | DATE |
|-----------------------|--|---------------|
| PRIORITY INFORMATION: | US 2002-393111P | 20020703 (60) |
| | US 2002-397979P | 20020724 (60) |
| | US 2002-418353P | 20021016 (60) |
| | US 2003-449798P | 20030226 (60) |
| | US 2003-456182P | 20030321 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | EDWARD D GRIEFF, HALE & DORR LLP, 1455 PENNSYLVANIA AVE, NW, WASHINGTON, DC, 20004 | |
| NUMBER OF CLAIMS: | 58 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 5705 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention describes novel nitrosated nonsteroidal antiinflammatory drugs (NSAIDs) and pharmaceutically acceptable salts thereof, and novel compositions comprising at least one nitrosated NSAID, and, optionally, at least one compound that donates, transfers or releases nitric oxide, stimulates endogenous synthesis of nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor or is a substrate for nitric oxide synthase, and/or at least one therapeutic agent. The invention also provides novel compositions comprising at least one nitrosated NSAID, and at least one compound that donates, transfers or releases nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase and/or at least one therapeutic agent. The invention also provides novel kits comprising at least one nitrosated NSAID, and, optionally, at least one nitric oxide donor and/or at least one therapeutic agent. The invention also provides methods for treating inflammation, pain and fever; for treating gastrointestinal disorders; for facilitating wound healing; for treating and/or preventing gastrointestinal, renal and/or respiratory toxicities resulting from the use of nonsteroidal antiinflammatory compounds; for treating inflammatory disease states and/or disorders; and for treating and/or preventing ophthalmic diseases and/or disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2004:31748 USPATFULL
TITLE: Drugs for diabetes
INVENTOR(S): Del Soldato, Piero, Monza Milano, ITALY

| | NUMBER | KIND | DATE |
|---------------------|-----------------|------|---------------|
| PATENT INFORMATION: | US 2004023890 | A1 | 20040205 |
| APPLICATION INFO.: | US 2003-398511 | A1 | 20030411 (10) |
| | WO 2001-EP11665 | | 20011009 |

| | NUMBER | DATE |
|-----------------------|----------------|----------|
| PRIORITY INFORMATION: | IT 2000-MI2201 | 20001012 |
| DOCUMENT TYPE: | Utility | |

Searcher : Shears 571-272-2528

10/147770

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ARENT FOX KINTNER PLOTKIN & KAHN, 1050 CONNECTICUT
AVENUE, N.W., SUITE 400, WASHINGTON, DC, 20036
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 1593

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Use for the diabetes treatment of compounds or salts thereof, having
the following general formula (I): A-(B).sub.b0--(C).sub.c0--
NO.sub.2 wherein A contains the radical of a drug having an
antiinflammatory or analgesic activity, B is a bivalen: linking group
wherein the precursor must meet the tests described in the
application, C is a a bivalent linking group as defined in the
invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:234795 USPATFULL
TITLE: Nitroxyderivatives having antinflammatory,
analgesic and antithrombotic activity
INVENTOR(S): Benedini, Francesca, Milan, ITALY
Del Soldato, Piero, Monza, ITALY
PATENT ASSIGNEE(S): Nicox S.A., Paris, FRANCE (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 6613784 | B1 | 20030902 |
| | WO 2000051988 | | 20000908 |
| APPLICATION INFO.: | US 2001-926095 | | 20010830 (9) |
| | WO 2000-EP1454 | | 20000223 |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | IT 1999-MI413 | 19990302 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Davis, Zinna Northington | |
| LEGAL REPRESENTATIVE: | Arent Fox Kintner Plotkin & Kahn PLLC | |
| NUMBER OF CLAIMS: | 12 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 0 Drawing Figure(s); 0 Drawing Page(s) | |
| LINE COUNT: | 1127 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Organic or inorganic salts of compounds of general formula:
A--X.sub.1--N(O).sub.z for use as medicaments having
anti-inflammatory, analgesic and antithrombotic activity, wherein A
is R(COX.sub.u).sub.t wherein t is 0 or 1; u is 0 or 1 and X is O,
NH, NR.sub.1c wherein R.sub.1c us a C.sub.1-C.sub.10 alkyl and R is,
for example, (Ia) wherein R.sub.1 is acetoxy, preferably in ortho
position with respect to --CO-- and R.sub.2 is hydrogen or
acetylsalicylsalicylic acid derivatives; and X.sub.1 is the formula
(B), Y being a ring containing at least one salified nitrogen atom.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 6 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:26442 USPATFULL
TITLE: Synthesis method of nitroxymethylphenyl esters of

Searcher : Shears 571-272-2528

10/147770

INVENTOR(S): aspirin derivatives
Del Soldato, Piero, Milan, ITALY
Garufi, Michele, Milan, ITALY
PATENT ASSIGNEE(S): Nicox S.A., Paris, FRANCE (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 6512137 | B1 | 20030128 |
| | WO 2000044705 | | 20000803 |
| APPLICATION INFO.: | US 2001-868932 | | 20010717 (9) |
| | WO 2000-EP353 | | 20000118 |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | IT 1999-MI134 | 19990126 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Lambkin, Deborah C. | |
| LEGAL REPRESENTATIVE: | Arent Fox Kintner, Plotkin & Kahn PLLC | |
| NUMBER OF CLAIMS: | 5 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 0 Drawing Figure(s); 0 Drawing Page(s) | |
| LINE COUNT: | 331 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention describes a method for the synthesis of
nitroxymethylphenyl esters of aspirin derivatives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 7 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1999:7413 USPATFULL
TITLE: Nitro compounds of the formula A-X.sub.i -NO.sub.2
and their compositions having anti-inflammatory;
analgesic and anti-thrombotic activities
INVENTOR(S): Del Soldato, Piero, Milan, Italy
Sanniccolo, Francesco, Milan, Italy
PATENT ASSIGNEE(S): Nicox S.A., Paris, France (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------------------|
| PATENT INFORMATION: | US 5861426 | | 19990119 |
| | WO 9530641 | | 19951116 |
| APPLICATION INFO.: | US 1997-737426 | | 19970306 (8) |
| | WO 1995-EP1233 | | 19950404 |
| | | | 19970306 PCT 371 date |
| | | | 19970306 PCT 102(e) date |

| | NUMBER | DATE |
|-----------------------|-------------------|----------|
| PRIORITY INFORMATION: | IT 1994-MI916 | 19940510 |
| | IT 1994-MI1731 | 19940809 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Higel, Floyd D. | |
| LEGAL REPRESENTATIVE: | Hale and Dorr LLP | |
| NUMBER OF CLAIMS: | 40 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 1242 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Searcher : Shears 571-272-2528

10/147770

AB New compounds and their compositions having anti-inflammatory, analgesic and anti-thrombotic activities, of the general formula: A--X.sub.1 --NO.sub.2 or their salts, wherein: A is R(COX.sub.u).sub.t, wherein t is zero or 1 and u is zero or 1; and X is O, NH or NR.sub.1C wherein R.sub.1C is C.sub.1 -C.sub.10 alkyl; and R is(Ia) wherein R.sub.1 is acetoxoy, preferably n ortho-position with respect to --CO-- and R.sub.2 is hydrogen; or derivatives of acetylsalicylsalicyclic acid; and X.sub.1 is --YO-- wherein Y is C.sub.1 -C.sub.20 alkylene, C.sub.5 -C.sub.7 cycloalkylene, oxy-alkyl derivatives and oxy-methyl benzyl derivatives.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 8 OF 9 USPATFULL on STN

ACCESSION NUMBER: 1998:82781 USPATFULL

TITLE: Nitric esters having anti-inflammatory and/or analgesic activity and process for their preparation

INVENTOR(S): Del Soldato, Piero, Milan, Italy

PATENT ASSIGNEE(S): Nicox S.A., Paris, France (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 5780495 | | 19980714 |
| APPLICATION INFO.: | US 1997-902570 | | 19970729 (8) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1996-624508, filed on 5 Apr 1996, now patented, Pat. No. US 5700947 | | |

| | NUMBER | DATE |
|-----------------------|-------------------|----------|
| PRIORITY INFORMATION: | GB 1993-20599 | 19931006 |
| | IT 1994-MI916 | 19940510 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | McKane, Joseph | |
| LEGAL REPRESENTATIVE: | Hale and Dorr LLP | |
| NUMBER OF CLAIMS: | 9 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 499 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to nitric esters of derivatives of propionic acid, 1-(p-chlorobenzoyl)-5-methoxy-2-methyl-3-indolylacetic acid, 5-benzoyl-1,2-dihydro-3H-pyrrolo [1,2-a]pyrrole-1-carboxylic acid, 6-methoxy-2-naphthylacetic acid, characterized in that they have the following general formula:
##STR1## These nitric ester derivatives may be formulated into pharmaceutical compositions and administered for their anti-inflammatory and/or analgesic activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 9 USPATFULL on STN

ACCESSION NUMBER: 97:120757 USPATFULL

TITLE: Nitric esters having anti-inflammatory and/or analgesic activity and process for their preparation

INVENTOR(S): Soldato, Piero Del, Monza, Italy

PATENT ASSIGNEE(S): NICOX S.A., Paris, France (non-U.S. corporation)

Searcher : Shears 571-272-2528

10/147770

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------------------|
| PATENT INFORMATION: | US 5700947 | | 19971223 |
| | WO 9509831 | | 19950413 |
| APPLICATION INFO.: | US 1996-624508 | | 19960405 (8) |
| | WO 1994-EP3182 | | 19940923 |
| | | | 19960405 PCT 371 date |
| | | | 19960405 PCT 102(e) date |

| | NUMBER | DATE |
|-----------------------|-------------------|----------|
| PRIORITY INFORMATION: | GB 1993-20599 | 19931006 |
| | IT 1994-MI916 | 19940510 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Shah, Mukund J. | |
| ASSISTANT EXAMINER: | Bucknum, Michael | |
| LEGAL REPRESENTATIVE: | Hale and Dorr LLP | |
| NUMBER OF CLAIMS: | 13 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 518 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to nitric esters of derivatives of propionic acid, 1-(p-chlorobenzoyl)-5-methoxy-2-methyl-3-indolylacetic acid, 5-benzoyl-1,2-dihydro-3H-pyrrolo[1,2-a]pyrrole-1-carboxylic acid, 6-methoxy-2-naphthylacetic acid, characterized in that they have the following general formula: ##STR1## These nitric ester derivatives may be formulated into pharmaceutical compositions and administered for their anti-inflammatory and/or analgesic activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:09:23 ON 22 APR 2005)

L6 3 S L2

L7 3 DUP REM L6 (0 DUPLICATES REMOVED)

L7 ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:630194 BIOSIS

DOCUMENT NUMBER: PREV200200630194

TITLE: Chemoprevention of colonic aberrant crypt foci by nitric oxide (NO)-releasing NSAIDs.

AUTHOR(S): Rao, Chintalapally V. [Reprint author]; Simi, Barbara; Cooma, Indranie; Rigas, Basil; Kopelovich, Levy; Reddy, Bandaru S.

CORPORATE SOURCE: American Health Foundation, Valhalla, NY, USA

SOURCE: Cancer Epidemiology Biomarkers and Prevention, (October, 2002) Vol. 11, No. 10 Part 2, pp. 1231s. print.

Meeting Info.: Proceedings of the American Association for Cancer Research Conference on Frontiers in Cancer Prevention Research. Boston, MA, USA. October 14-18, 2002. American Society of Preventive Oncology. ISSN: 1055-9965.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 12 Dec 2002
Last Updated on STN: 20 Jan 2003

L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

ACCESSION NUMBER: 2001:435900 BIOSIS
DOCUMENT NUMBER: PREV200100435900
TITLE: Lack of gastric toxicity of nitric oxide-releasing
indomethacin, NCX-530, in experimental animals.
AUTHOR(S): Takeuchi, Koji [Reprint author]; Mizoguchi, Hiroyuki;
Araki, Hideo; Komoike, Yusaku; Suzuki, Keizo
CORPORATE SOURCE: Department of Pharmacology and Experimental
Therapeutics, Kyoto Pharmaceutical University,
Misasagi, Yamashina, Kyoto, 607-8414, Japan
SOURCE: Digestive Diseases and Sciences, (August, 2001) Vol.
46, No. 8, pp. 1805-1818. print.
CODEN: DDSCDJ. ISSN: 0163-2116.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Sep 2001
Last Updated on STN: 23 Feb 2002

AB The effects of a nitric oxide (NO) releasing derivative of
indomethacin (NCX-530) on gastric ulcerogenic and healing responses
were evaluated in rats and mice, in comparison with the parent
compound indomethacin. Indomethacin (per os) produced damage in the
rat stomach in a dose-dependent manner. NCX-530 (per os) itself,
however, was not ulcerogenic and even showed a dose-dependent
protection against HCl/ethanol-induced lesions in the rat stomach.
Likewise, indomethacin given repeatedly delayed healing of gastric
ulcers induced in mice by thermal cauterization, while NCX-530 did not
affect the healing response and significantly promoted the healing as
compared to indomethacin. These actions of NCX-530 were mimicked by
the combined administration of a NO donor NOR-3 with indomethacin.
The amount of NO metabolites was increased in both the gastric
contents and serum when NCX-530, but not indomethacin, was given in
pylorus-ligated stomachs. Neither indomethacin nor NCX-530 influenced
gastric acid secretion and transmucosal potential difference, yet
NCX-530 caused a marked increase of gastric mucosal blood flow, which
was preventable by carboxy-PTIO, a scavenger of NO. Gastric motility
was increased by indomethacin but not by NCX-530. In addition,
NCX-530 inhibited PGE2 generation in both the intact and ulcerated
gastric mucosa and showed antiinflammatory action on
carrageenan-induced rat paw edema, as effectively as indomethacin.
These results suggest that unlike indomethacin, NCX-530 caused neither
an irritating action on the stomach nor healing impairment effect on
the preexisting gastric ulcers, but conferred gastric protection
against HCl/ethanol, despite causing cyclooxygenase inhibition and
antiinflammatory action, as effectively as indomethacin. This
NO-releasing indomethacin, probably by releasing NO, exerts protective
influences, such as an increase of gastric mucosal blood flow, that
counteract the potential damaging effects of cyclooxygenase inhibition
by indomethacin.

L7 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

ACCESSION NUMBER: 2001:122852 BIOSIS
DOCUMENT NUMBER: PREV200100122852
TITLE: Lack of small intestinal ulcerogenicity of nitric
oxide-releasing indomethacin, NCX-530, in rats.

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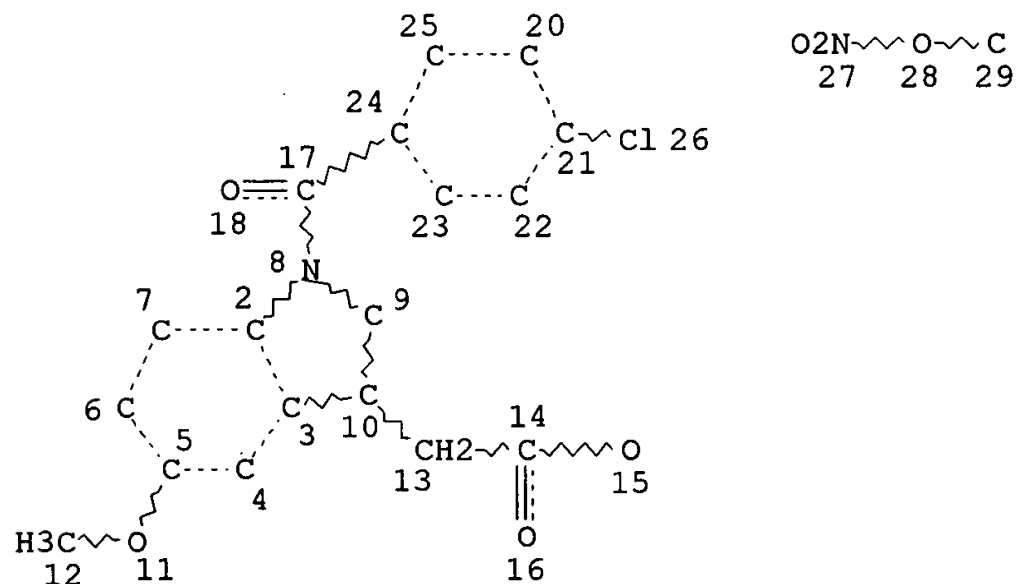
AUTHOR(S): Mizoguchi, H.; Hase, S.; Tanaka, A.; Takeuchi, K.
[Reprint author]
CORPORATE SOURCE: Department of Pharmacology and Experimental
Therapeutics, Kyoto Pharmaceutical University,
Misasagi, Yamashina, Kyoto, 607-8414, Japan
takeuchi@mb.kyoto-phu.ac.jp
SOURCE: Alimentary Pharmacology and Therapeutics, (February,
2001) Vol. 15, No. 2, pp. 257-267. print.
CODEN: APTHEN. ISSN: 0269-2813.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Mar 2001
Last Updated on STN: 15 Feb 2002

AB Aim: To evaluate the intestinal ulcerogenic property of nitric
oxide-releasing indomethacin (NCX-530) in the rat, in comparison with
indomethacin. Methods: Animals were given indomethacin or NCX-530
subcutaneously and killed 24 h later for macroscopic examination of
the small intestine. Results: A single administration of indomethacin
(10 mg/kg) provoked damage, mainly in the jejunum and ileum,
accompanied by an increase in myeloperoxidase and inducible nitric
oxide synthase activities as well as bacterial translocation. NCX-530
at an equimolar dose (14.2 mg/kg) caused no gross damage in the small
intestine, nor any significant change in inducible nitric oxide
synthase and myeloperoxidase activities or bacterial translocation.
NOR-3, the nitric oxide donor (6.0 mg/kg), when administered
subcutaneously together with indomethacin, significantly prevented the
occurrence of intestinal lesions and other mucosal changes.
Indomethacin reduced mucus and fluid secretions in the small
intestine, while both NCX-530 and NOR-3 enhanced these secretions.
NCX-530 reduced the mucosal prostaglandin E2 contents and exhibited an
anti-inflammatory action against carrageenan-induced paw oedema, with
equal effectiveness to indomethacin. Conclusion: NCX-530 does not
cause intestinal damage, despite inhibiting cyclooxygenase activity.
The reduced intestinal toxicity of NCX-530 may be attributable to
inhibition of enterobacterial translocation, partly by increasing the
mucus and fluid secretions mediated by nitric oxide released from this
compound.

(FILE 'MARPAT' ENTERED AT 11:12:04 ON 22 APR 2005)

L1

STR



NODE ATTRIBUTES:

Searcher : Shears 571-272-2528

10/147770

NSPEC IS RC AT 29
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

L9 19 SEA FILE=MARPAT SSS FUL L1 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 177 ITERATIONS 19 ANSWERS
SEARCH TIME: 00.00.01

L9 ANSWER 1 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 140:350593 MARPAT
TITLE: Use of NO-donating NSAIDs for the treatment of
conditions associated with gastrointestinal
motility
INVENTOR(S): Jonzon, Bror; Hoogstraate, Janet
PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2004035042 | A1 | 20040429 | WO 2003-SE1603 | 20031015 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |

PRIORITY APPLN. INFO.: SE 2002-3093 20021018

AB The invention discloses the use of NO-donating nonsteroidal antiinflammatory drugs in the treatment of conditions associated with gastrointestinal motility, a method of treatment of such conditions, and the use of pharmaceutical compns. comprising one or more NO-donating NSAID(s) in the treatment of such conditions. More particularly, the invention is directed to the use of one or more NO-donating NSAID(s) for the manufacture of a medicament for the treatment of conditions associated with disturbed gastrointestinal motility.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

Searcher : Shears 571-272-2528

10/147770

RE FORMAT

L9 ANSWER 2 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 140:287165 MARPAT
 TITLE: Manufacturing process for NO-donating compounds
 such as NO-donating diclofenac
 INVENTOR(S): Andersson, Johan; Belli, Aldo; Cannata, Vincenzo;
 Hedberg, Martin; Palmgren, Andreas; Schuldei,
 Sigrid; Stroem, Marika; Villa, Marco
 PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK; Astrazeneca AB
 SOURCE: PCT Int. Appl., 68 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2004026808 | A1 | 20040401 | WO 2003-SE1465 | 20030918 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRIORITY APPLN. INFO.: SE 2002-2801 20020920
 SE 2003-1476 20030520

OTHER SOURCE(S): CASREACT 140:287165
 AB NO-Donating compds. MLnAmCO2XONOp [M = residue of an NSAID, COX-1
 inhibitor or COX-2 inhibitor; L = O, S, CO2, (un)substituted CONH, NH,
 CO, CH2, CH2CO, CH2CONH, CH2CO2; A = (un)substituted alkylene; X =
 carbon linker; m, n = 0-3; p = 1, 2] are prepared by treating MLnAmCO2H
 with HOXOH, treating MLnAmCO2XOH with RSO2Cl [R = alkyl,
 (un)substituted Ph, CH2Ph, halogen, CF3, C4F9], and treating
 MLnAmCO2XO3SR with nitrate. A substantially crystalline form of
 2-[2-(nitrooxy)ethoxy]ethyl {2-[(2,6-dichlorophenyl)amino]phenyl}aceta
 te is reported.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L9 ANSWER 3 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 140:253345 MARPAT
 TITLE: Process for preparing nitrooxyalkyl esters of
 carboxylic acids
 INVENTOR(S): Del Soldato, Piero; Santus, Giancarlo; Benedini,
 Francesca
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

Searcher : Shears 571-272-2528

10/147770

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2004020385 | A1 | 20040311 | WO 2003-EP8700 | 20030806 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRIORITY APPLN. INFO.:

IT 2002-MI1861 20020829

OTHER SOURCE(S): CASREACT 140:253345

AB RCO₂(CR₁R₂)m(CR₃R₄)n(CR₅R₆)oXp(CR₇R₈)q(CR₉R₁₀)r(CR₁₁R₁₂)sONO₂ [R = residue of a pharmaceutically active compound, ferulic acid; R₁-R₁₂ = H, alkyl, aralkyl; m, n, o, q, r, s = 0-6; p = 0, 1; X = O, S, SO, SO₂, NR₁₃, PR₁₃, (substituted) cycloalkylene, arylene, heterocyclylene; R₁₃ = H, alkyl], were prepared by reaction of RCO₂Z (R as defined above; Z = H, Li⁺, Na⁺, K⁺, Ca⁺⁺, Mg⁺⁺, tetralkylammonium, tetralkylphosphonium) with Y(CR₁R₂)m(CR₃R₄)n(CR₅R₆)oXp(CR₇R₈)q(CR₉R₁₀)r(CR₁₁R₁₂)sONO₂ [Y = Br, Cl, iodo, BF₄, SbF₆, FSO₃, ASO₃; A = (substituted) alkyl; other variables as defined above]. Thus, ferulic acid, 4-nitrooxybutyl bromide, and Et₃N were stirred 3 days in DMF to give 65% ferulic acid 4-nitrooxybutyl ester.

REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 140:111135 MARPAT

TITLE: Preparation of nitrosated nonsteroidal antiinflammatory compounds

INVENTOR(S): Earl, Richard A.; Ezawa, Maiko; Fang, Xinqin; Garvey, David S.; Gaston, Ricky D.; Khanapure, Subhash P.; Letts, Gordon L.; Lin, Chia-En; Ranatunge, Ramani R.; Richardson, Stewart K.; Schroeder, Joseph D.; Stevenson, Cheri A.; Wey, Shiow-Jyi

PATENT ASSIGNEE(S): Nitromed, Inc., USA

SOURCE: PCT Int. Appl., 145 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2004004648 | A2 | 20040115 | WO 2003-US21026 | 20030703 |
| WO 2004004648 | A3 | 20041028 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, | | | | |

Searcher : Shears 571-272-2528

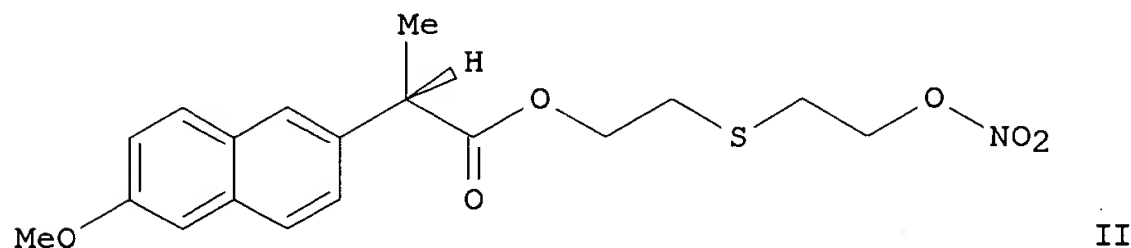
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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

US 2004024057 A1 20040205
PRIORITY APPLN. INFO.:

US 2003-612014 20030703
US 2002-393111P 20020703
US 2002-397979P 20020724
US 2002-418353P 20021016
US 2003-449798P 20030226
US 2003-456182P 20030321

GI



AB Title compds. R_nR_mHC-CO-X [R_m = H, alkyl; R_n = 4-((thiophen-2-yl)carbonyl)phenyl, 3-(benzoyl)phenyl, etc.; X = Y-alkyl-aryl, etc.; Y = O, S; I] are prepared For instance, naproxen is coupled to 2,2'-thiodiethanol (CH₂Cl₂, DMAP, EDCI) and treated with Ac₂O/HNO₃ at 0° to give II. I are nitrosated nonsteroidal antiinflammatory drugs (NSAIDs) used alone or are combined with one compound that donates, transfers or releases nitric oxide, stimulates endogenous synthesis of nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor or is a substrate for nitric oxide synthase. The invention provides methods for treating inflammation, pain, fever, gastrointestinal disorders, etc.

L9 ANSWER 5 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 140:73178 MARPAT

TITLE: Nitroxy derivatives of non-steroidal anti-inflammatory compounds as selective inhibitors of cyclooxygenase-2 for the treatment of inflammation

INVENTOR(S): Del Soldato, Piero; Santus, Giancarlo

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2004000300 | A1 | 20031231 | WO 2003-EP6651 | 20030624 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, | | | | |

Searcher : Shears 571-272-2528

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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

PRIORITY APPLN. INFO.:

IT 2002-MI1399 20020625

AB The present invention relates to compds. able to inhibit selectively the enzyme cyclooxygenase-2 (COX-2) without inhibiting substantially the enzyme COX-1. Specifically, the present invention concerns nitroxy derivs. of non-steroidal anti-inflammatory compds., which are able to inhibit selectively the enzyme COX-2. The compds. of the invention are useful in the treatment and/or prophylaxis of inflammatory processes.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 139:302040 MARPAT

TITLE: Nitrooxy derivatives of antiinflammatory/analgesic compounds for the treatment of arthritis

INVENTOR(S): Del Soldato, Piero

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2003084550 | A1 | 20031016 | WO 2003-EP3183 | 20030327 |
| W: | AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, SG, TN, TT, UA, US, UZ, VN, YU, ZA | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1492543 | A1 | 20050105 | EP 2003-720377 | 20030327 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | |

PRIORITY APPLN. INFO.:

IT 2002-MI773 20020411

WO 2003-EP3183 20030327

AB Antiinflammatory and/or antiinflammatory/analgesic compds. having the formula A(B)b0(C)c0-N(0)s [A contains radical of nonsteroidal antiinflammatory or nonsteroidal antiinflammatory/analgesic drug; B, C = bivalent linking group; s = 1, 2; b0, c0 = 0, 1 (with proviso)], and salts thereof, are disclosed for use in the treatment of arthritis.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR

Searcher : Shears 571-272-2528

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THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L9 ANSWER 7 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 138:260440 MARPAT
TITLE: Self emulsifying drug delivery system containing
NSAIDs
INVENTOR(S): Holmberg, Christina
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|--|-----------------|-------------------------|
| WO 2003022249 | A1 | 20030320 | WO 2002-SE1598 | 20020905 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1427392 | A1 | 20040616 | EP 2002-765747 | 20020905 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| JP 2005504788 | T2 | 20050217 | JP 2003-526379 | 20020905 |
| US 2004248974 | A1 | 20041209 | US 2004-488585 | 20040304 |
| PRIORITY APPLN. INFO.: | | | | SE 2001-2993 20010907 |
| | | | | WO 2002-SE1598 20020905 |
| AB A pharmaceutical composition suitable for oral administration, in form of an emulsion pre-concentrate, comprises 1 or more NO-releasing NSAID(s), 1 or more surfactants, of which at least one is phospholipid, the composition forming an in-situ oil-in-water emulsion upon contact with gastrointestinal fluids. The composition may optionally also comprise an addnl. oil or semi-solid fat. Further, 1 or more short-chain alcs. can optionally be included in the composition Also within the scope of the invention is a combination with a proton pump inhibitor. The pharmaceutical composition is useful in the treatment of pain and inflammation. Further within the scope of the invention is kit comprising a pharmaceutical composition according to the invention in a unit dosage form, in combination with a proton pump inhibitor, and the proton pump inhibitor is enteric coated. Thus, a formulation contained Lipoid S100 0.30, propylene glycol 0.90, and a NO-releasing NSAID 4.00 g. | | | | |
| REFERENCE COUNT: | 6 | THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | |

L9 ANSWER 8 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 137:369833 MARPAT
TITLE: Preparation of nitrooxy cysteine derivatives for

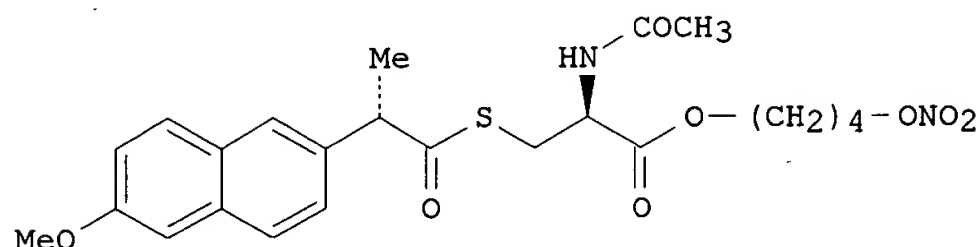
Searcher : Shears 571-272-2528

10/147770

INVENTOR(S): the Alzheimer's disease
 Del Soldato, Piero
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2002092072 | A2 | 20021121 | WO 2002-EP5165 | 20020510 |
| WO 2002092072 | A3 | 20030501 | | |
| W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRIORITY APPLN. INFO.: IT 2001-MI985 20010515
 GI



II

AB Title compds. A-Bn-Cm-NO₂ [n, m = 0-1 with the proviso that m, n cannot be contemporaneously equal to 0; A = R-T₁; R = (hetero)cycle; T₁ = (CO)0-1, X0-1; X = O, S, amino; B = T₂-X₂-T₃; T₂-3 = CO, X, etc.; X₂ = bivalent linking group; C = bivalent linking radical; I] were prepared For instance, 6-methoxy-α-methyl-2-naphthalenacetic acid was coupled to (S)-N-acetylcysteine (DMF/CHCl₃, CDI, 12 h), the product converted to the 4-bromobutyl ester (THF, Ph₃P, CBr₄, 24 h) and that intermediate treated with AgNO₃ (CH₃CN, reflux, 7 h) to afford II. Nitrooxy derivs. of the invention are effective in inhibiting LPS-induced neurodegeneration and are useful in the treatment of Alzheimer's disease.

L9 ANSWER 9 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 137:253012 MARPAT
 TITLE: Pharmaceutical compositions containing NO-releasing NSAID and surfactants
 INVENTOR(S): Siekmann, Britta; Thoring, Barbro
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

Searcher : Shears 571-272-2528

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002074282 | A1 | 20020926 | WO 2002-SE476 | 20020313 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2435825 | AA | 20020926 | CA 2002-2435825 | 20020313 |
| EP 1370239 | A1 | 20031217 | EP 2002-704035 | 20020313 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2002007760 | A | 20040601 | BR 2002-7760 | 20020313 |
| JP 2004523577 | T2 | 20040805 | JP 2002-572990 | 20020313 |
| US 2004096494 | A1 | 20040520 | US 2003-471378 | 20030909 |
| NO 2003004026 | A | 20031111 | NO 2003-4026 | 20030911 |
| PRIORITY APPLN. INFO.: | | | SE 2001-901 | 20010315 |
| | | | WO 2002-SE476 | 20020313 |
| AB A new pharmaceutical composition in the form of lipoglobules comprises (a) 1 or more NO-releasing NSAIDs; (b) 1 or more surfactants; and (c) an aqueous phase, and is useful for the treatment of pain and inflammation. Thus, a composition contained 4-(nitrooxy)butyl 6-methoxy- α -methyl-2-naphthaleneacetate 0.77, fractionated coconut oil 2.97, Phospholipon-80 0.76, and Poloxamer-407 1.61 mg/g. | | | | |
| REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | | |

L9 ANSWER 10 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 136:325420 MARPAT
 TITLE: Drugs for diabetes, especially type 2, comprising an antiinflammatory or analgesic drug, selected bivalent linkers, and a nitrate ester
 INVENTOR(S): Del Soldato, Piero
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 66 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

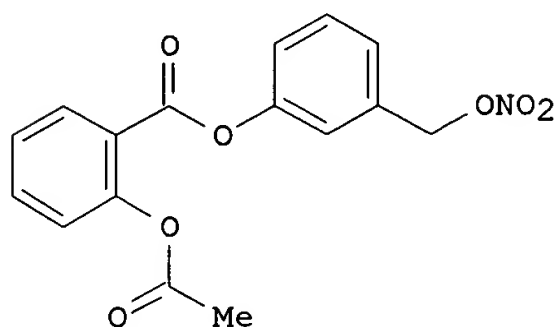
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002030867 | A2 | 20020418 | WO 2001-EP11665 | 20011009 |
| WO 2002030867 | A3 | 20020725 | | |
| W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

| | | | | |
|--|----|----------|-----------------|----------|
| IT 1319201 | B1 | 20030926 | IT 2000-MI2201 | 20001012 |
| CA 2425655 | AA | 20020418 | CA 2001-2425655 | 20011009 |
| AU 2002014006 | A5 | 20020422 | AU 2002-14006 | 20011009 |
| EP 1324974 | A2 | 20030709 | EP 2001-982414 | 20011009 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2004511456 | T2 | 20040415 | JP 2002-534256 | 20011009 |
| US 2004023890 | A1 | 20040205 | US 2003-398511 | 20030411 |
| PRIORITY APPLN. INFO.: | | | IT 2000-MI2201 | 20001012 |
| | | | WO 2001-EP11665 | 20011009 |

GI



II

AB Useful for the treatment of diabetes, particularly type 2, are compds. or salts thereof, having the following general formula A-(B)_n-(C)_m-NO₂ [I; wherein A = radical of a drug having an antiinflammatory or analgesic activity; B = bivalent linking group wherein the precursor must meet certain tests described in the application; C = another defined bivalent linking group; n and m = 0 or 1, provided that (n + m) = 1 or 2]. I can be used in conjunction with other antidiabetic drugs, particularly insulin. I increase the direct antidiabetic effect of insulin, and reduce complications of diabetes, particularly vascular diseases, retinopathies, neuropathies, etc.. The values of n and m, i.e., the presence or absence of bivalent linkers B and C, alone or in combination, are based on performance of the precursors of the linkers in certain tests (no data). These tests are designated as follows: (test 4A): inhibition by > 15% of hemolysis of rat erythrocytes induced by cumene hydroperoxide; (test 5): inhibition of radical production by ≥ 50% in the oxidative degradation of . desoxyribose in aqueous Fe²⁺+(NH₄)₂(SO₄)₂/thiobarbituric acid solution; and (test 4): inhibition by ≥ 50% of DPPH-induced radical production in MeOH solution. For instance, acetylsalicylic acid chloride was esterified with 3-(hydroxymethyl)phenol (80%), followed by nitration of the resultant Ph ester with HNO₃/H₂SO₄ (82%), to give invention compound II, which is thus the 3-(nitrooxymethyl)phenyl ester of aspirin. When tested on isolated aorta from insulin-resistant rats, compound II at a concentration of 10⁻⁴ M gave 70% vasorelaxation, relative to non-insulin-resistant controls. This effect was unchanged by the presence or absence of the irreversible NO synthetase inhibitor LNNA. In contrast, both Na nitroprussiate and the indomethacin analog of II, known NO donors, were inactive, and the antidiabetic drug metformin was inactivated by LNNA.

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L9 ANSWER 11 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 136:189342 MARPAT
TITLE: Drugs for treatment of sexual dysfunction
INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2002011706 | A2 | 20020214 | WO 2001-EP8733 | 20010727 |
| WO 2002011706 | A3 | 20030918 | | |
| W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1318673 | B1 | 20030827 | IT 2000-MI1847 | 20000808 |
| AU 2001091690 | A5 | 20020218 | AU 2001-91690 | 20010727 |
| EP 1363628 | A2 | 20031126 | EP 2001-971797 | 20010727 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR | | | | |
| JP 2004506619 | T2 | 20040304 | JP 2002-517043 | 20010727 |
| US 2003171393 | A1 | 20030911 | US 2003-333927 | 20030204 |
| PRIORITY APPLN. INFO.: IT 2000-MI1847 20000808 | | | | |
| WO 2001-EP8733 20010727 | | | | |

AB Pharmaceuticals containing nitric oxide-donor drugs or inorg. salts of compds. inhibiting phosphodiesterases are useful for the treatment of sexual dysfunction. Thus, a formulation contained 2-(acetyloxy)benzoic acid 6-(nitroxy-methyl)-2-methylpyridyl ester-HCl (NCX 4050) 4.2, white petrolatum 24, Polysorbate-60 4.8, glycerin 9.5, and water 48 g. NCX 4050 showed vasorelaxing activity on the aortas.

L9 ANSWER 12 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 136:178015 MARPAT
TITLE: Drugs for incontinence - salified and nonsalified nitric oxide-donors and phosphodiesterase inhibitors
INVENTOR(S): Del Soldato, Piero; Benedini, Francesca
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2002011707 | A2 | 20020214 | WO 2001-EP8734 | 20010727 |
| WO 2002011707 | A3 | 20021205 | | |
| W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, | | | | |

Searcher : Shears 571-272-2528

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DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK,
LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK,
TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG
IT 1318674 B1 20030827 IT 2000-MI1848 20000808
AU 2001091691 A5 20020218 AU 2001-91691 20010727
EP 1307184 A2 20030507 EP 2001-971798 20010727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004511436 T2 20040415 JP 2002-517044 20010727
US 2003203899 A1 20031030 US 2003-343330 20030206
PRIORITY APPLN. INFO.: IT 2000-MI1848 20000808
WO 2001-EP8734 20010727
AB Use in the incontinence of one or more of the following classes of
drugs selected from the following: (B) salified and nonsalified nitric
oxide-donor drugs, of formula: A - X1 - N(O)z, (B') nitrate salts of
drugs used for the incontinence, and which do not contain in the mol.
a nitric oxide donor group; (C) organic or inorg. salts of compds.
inhibiting phosphodiesterases.
L9 ANSWER 13 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 135:231708 MARPAT
TITLE: New self emulsifying drug delivery system
INVENTOR(S): Holmberg, Christina; Siekmann, Britta
PATENT ASSIGNEE(S): AstraZeneca AB, Swed.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2001066088 | A1 | 20010913 | WO 2001-SE467 | 20010306 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2401498 | AA | 20010913 | CA 2001-2401498 | 20010306 |
| EP 1267832 | A1 | 20030102 | EP 2001-910305 | 20010306 |
| EP 1267832 | B1 | 20040602 | | |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| BR 2001009014 | A | 20030603 | BR 2001-9014 | 20010306 |
| JP 2003525894 | T2 | 20030902 | JP 2001-564741 | 20010306 |
| EE 200200500 | A | 20040216 | EE 2002-500 | 20010306 |
| AT 268162 | E | 20040615 | AT 2001-910305 | 20010306 |
| NZ 521009 | A | 20040625 | NZ 2001-521009 | 20010306 |

Searcher : Shears 571-272-2528

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| | | | | |
|------------------------|----|----------|-----------------|----------|
| PT 1267832 | T | 20040930 | PT 2001-910305 | 20010306 |
| ES 2220728 | T3 | 20041216 | ES 2001-1910305 | 20010306 |
| ZA 2002006740 | A | 20031124 | ZA 2002-6740 | 20020822 |
| US 2003161846 | A1 | 20030828 | US 2002-220791 | 20020905 |
| NO 2002004272 | A | 20021105 | NO 2002-4272 | 20020906 |
| PRIORITY APPLN. INFO.: | | | SE 2000-773 | 20000308 |
| | | | WO 2001-SE467 | 20010306 |

AB The present invention claims and discloses a pharmaceutical composition suitable for oral administration, in form of an emulsion pre-concentrate, comprising: 1 or more NO-releasing NSAID(s), 1 or more surfactants, optionally an addnl. oil or semi-solid fat. The composition forms an in-situ oil-in-water emulsion upon contact with gastrointestinal fluids. The composition may optionally also comprise 1 or more short-chain alcs. Also within the scope of the invention is a combination with a proton pump inhibitor. The pharmaceutical composition is useful in the treatment of pain and inflammation. Further within the scope of the invention is kit comprising a pharmaceutical composition according to the invention in a unit dosage form, in combination with a proton pump inhibitor, and the proton pump inhibitor is enteric coated. Thus, a semisolid formulation contained a NO-releasing NSAID 750, Pluronic F127 450, and omeprazole 20 g.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 14 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 133:310142 MARPAT
TITLE: Synthesis, activity and formulations of pharmaceutical compounds for treatment of oxidative stress and/or endothelial dysfunction
INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2000061537 | A2 | 20001019 | WO 2000-EP3234 | 20000411 |
| WO 2000061537 | A3 | 20010927 | | |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1311924 | B1 | 20020320 | IT 1999-MI753 | 19990413 |
| CA 2370412 | AA | 20001019 | CA 2000-2370412 | 20000411 |
| BR 2000009702 | A | 20020108 | BR 2000-9702 | 20000411 |
| EP 1169294 | A2 | 20020109 | EP 2000-925203 | 20000411 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002541233 | T2 | 20021203 | JP 2000-610814 | 20000411 |
| NZ 514267 | A | 20040625 | NZ 2000-514267 | 20000411 |
| RU 2237657 | C2 | 20041010 | RU 2001-127576 | 20000411 |

Searcher : Shears 571-272-2528

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| | | | | |
|------------------------|----|----------|----------------|----------|
| AU 778989 | B2 | 20041223 | AU 2000-44001 | 20000411 |
| ZA 2001008127 | A | 20030103 | ZA 2001-8127 | 20011003 |
| NO 2001004927 | A | 20011213 | NO 2001-4927 | 20011010 |
| US 6869974 | B1 | 20050322 | US 2001-926326 | 20011015 |
| PRIORITY APPLN. INFO.: | | | IT 1999-MI753 | 19990413 |
| | | | WO 2000-EP3234 | 20000411 |

AB Compds. A-B-C-N(O)s and A-Cl[N(O)s]-B1 or their salts [s is an integer 1 or 2, preferably s = 2; A is the radical of a drug and is such as to meet the pharmacol. tests reported in the description; C and Cl are two bivalent radicals; the precursors of the radicals B and B1 are such as to meet the pharmacol. test reported in the description] were prepared for use as pharmaceuticals. Thus, (S,S)-N-acetyl-S-(6-methoxy- α -methyl-2-naphthalenylacetyl)cysteine 4-nitroxybutyl ester was prepared (NCX 2101) from naproxene and N-acetylcysteine in the first of 28 synthetic examples given. Pharmacol. test examples and tabular data are also given.

L9 ANSWER 15 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 133:152268 MARPAT
 TITLE: Synthesis method of (nitroxymethyl)phenyl esters of aspirin derivatives
 INVENTOR(S): Del Soldato, Piero; Garufi, Michele
 PATENT ASSIGNEE(S): Nicox S.A., Fr.
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2000044705 | A1 | 20000803 | WO 2000-EP353 | 20000118 |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 1307928 | B1 | 20011129 | IT 1999-MI134 | 19990126 |
| CA 2361454 | AA | 20000803 | CA 2000-2361454 | 20000118 |
| BR 2000007643 | A | 20011016 | BR 2000-7643 | 20000118 |
| EP 1147074 | A1 | 20011024 | EP 2000-904925 | 20000118 |
| EP 1147074 | B1 | 20050323 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002535380 | T2 | 20021022 | JP 2000-595962 | 20000118 |
| AU 766497 | B2 | 20031016 | AU 2000-26645 | 20000118 |
| RU 2232747 | C2 | 20040720 | RU 2001-120697 | 20000118 |
| ZA 2001005705 | A | 20021011 | ZA 2001-5705 | 20010711 |
| US 6512137 | B1 | 20030128 | US 2001-868932 | 20010717 |
| PRIORITY APPLN. INFO.: | | | IT 1999-MI134 | 19990126 |
| | | | WO 2000-EP353 | 20000118 |

AB RCO₂H [R = substituted Ph, substituted (phenylcarbonyloxy)phenyl, etc.] were manufactured by (A) esterification of acyl halides RCOX (X = Cl, Br; R as above) with an isomer of hydroxybenzaldehyde in the presence of a base, (B) reduction of aldehyde group of the intermediate ester to give a (hydroxymethyl)phenyl ester, (C) halogenation of the latter

Searcher : Shears 571-272-2528

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ester, e.g., with SOCl₂ to obtain the corresponding (chloromethyl)phenyl ester, and (D) reaction of the chlorinated product with an inorg. nitrate salt, e.g., AgNO₃. For example, 2-AcOC₆H₄CO₂C₆H₄(CH₂ONO₂)-3 was prepared as described above.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 129:67686 MARPAT

TITLE: Preparation of arylalkylcarboxylate esters derived from nitrated cycloaliphatic alcohols which are useful as analgesic, antiinflammatory and antithrombotic agents

INVENTOR(S): Droux, Serge; Gigliotti, Giuseppe; Joly, Pascal; Petit, Francis

PATENT ASSIGNEE(S): Hoechst Marion Roussel, Fr.; Droux, Serge; Gigliotti, Giuseppe; Joly, Pascal; Petit, Francis

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9825918 | A1 | 19980618 | WO 1997-FR2255 | 19971210 |
| W: JP, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| FR 2757159 | A1 | 19980619 | FR 1996-15272 | 19961212 |
| FR 2757159 | B1 | 19991217 | | |

PRIORITY APPLN. INFO.: FR 1996-15272 19961212

AB The invention concerns products Ar-(CHR₁)_p-C(O)O-(CH₂)_n-A-(CH₂)_m-ONO₂ (I, Ar = aromatic monocyclic or bicyclic radical comprising 5-10 C atoms and optionally 1 or 2 heteroatoms selected from N, O or S, said radical being itself substituted or not; R₁ = H, Me, or Et, n = 0-8, m = 0-8, n + m = 0-8, p = 0 or 1, A = bivalent radical derived from a saturated cyclic hydrocarbon containing 3-8 C atoms, optionally substituted, being understood that when m = 0 the saturated cyclic hydrocarbon does not contain 5-7 C atoms and that A is not linked to the groups Ar-(CHR₁)_p-C(O)O-(CH₂)_n and (CH₂)_m-ONO₂ by the same C atom). The invention also concerns the method for preparing I and the intermediate products of this method. The claimed methods comprise esterification of Ar-(CHR₁)_p-C(O)OH with HO-(CH₂)_n-A-(CH₂)_m-ONO₂ or esterification with HO-(CH₂)_n-A-(CH₂)_m-Z (Z = halo, OH) to give Ar-(CHR₁)_p-C(O)O-(CH₂)_n-A-(CH₂)_m-Z, followed by nitration. Intermediates used in the latter method are also claimed. Application of I as drugs and the pharmaceutical compns. containing them are claimed. Compds. I are useful as analgesic, antiinflammatory and antithrombotic agents.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 128:217188 MARPAT

TITLE: Preparation of nitric ester derivatives and their use in urinary incontinence and other diseases

Searcher : Shears 571-272-2528

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INVENTOR(S): Del Soldato, Piero; Sanniccolo', Francesco
 PATENT ASSIGNEE(S): Nicox S.A., Fr.; Del Soldato, Piero; Sanniccolo',
 Francesco
 SOURCE: PCT Int. Appl., 93 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9809948 | A2 | 19980312 | WO 1997-EP4774 | 19970902 |
| WO 9809948 | A3 | 19980604 | | |
| W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2264081 | AA | 19980312 | CA 1997-2264081 | 19970902 |
| AU 9743010 | A1 | 19980326 | AU 1997-43010 | 19970902 |
| AU 729533 | B2 | 20010201 | | |
| EP 931065 | A2 | 19990728 | EP 1997-919021 | 19970902 |
| EP 931065 | B1 | 20040728 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| BR 9712008 | A | 19990824 | BR 1997-12008 | 19970902 |
| CN 1234792 | A | 19991110 | CN 1997-199130 | 19970902 |
| JP 2000517332 | T2 | 20001226 | JP 1998-512226 | 19970902 |
| RU 2210563 | C2 | 20030820 | RU 1999-106676 | 19970902 |
| EP 1437132 | A1 | 20040714 | EP 2004-101544 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| AT 271858 | E | 20040815 | AT 1997-919021 | 19970902 |
| EP 1473288 | A1 | 20041103 | EP 2004-102724 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| ES 2224237 | T3 | 20050301 | ES 1997-919021 | 19970902 |
| AU 764127 | B2 | 20030814 | AU 2001-38954 | 20010427 |
| US 2004082652 | A1 | 20040429 | US 2003-686907 | 20031017 |

PRIORITY APPLN. INFO.:

IT 1996-MI1821 19960904
 AU 1997-43010 19970902
 EP 1997-919021 19970902
 WO 1997-EP4774 19970902
 US 1999-147770 19990428

AB R(COX)tX1NO2 [I; R = e.g., residue of non-steroidal antiinflammatory agent; X = O or (alkyl)imino; X1 = e.g., ZCH2O; Z = 1,3-phenylene], displaying cyclooxygenase inhibiting and myorelaxing effect related to opening of Ca channels and/or release of NO in lower urinary tract, were prepared Thus, flufenamic acid was esterified by 3-(HO)C6H4CH2ONO2 to give 3-(F3C)C6H4NHZ1CO2C6H4(CH2ONO2)-3 (Z1 = 1,2-phenylene). Data for biol. activity of I were given.

L9 ANSWER 18 OF 19 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 124:201789 MARPAT

TITLE: Preparation of aryl nitrate ester compounds having antiinflammatory and analgesic and antithrombotic activities

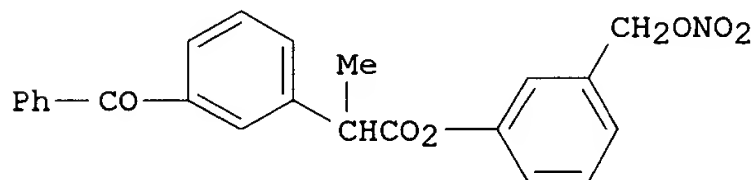
Searcher : Shears 571-272-2528

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INVENTOR(S): Del Soldato, Piero; Sanniccolo', Francesco
 PATENT ASSIGNEE(S): Nicox Ltd., Ire.
 SOURCE: PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|------|----------|-----------------|----------------|----------|
| WO 9530641 | A1 | 19951116 | WO 1995-EP1233 | 19950404 | |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN | | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | | |
| CA 2190087 | AA | 19951116 | CA 1995-2190087 | 19950404 | |
| AU 9522156 | A1 | 19951129 | AU 1995-22156 | 19950404 | |
| AU 702662 | B2 | 19990225 | | | |
| EP 759899 | A1 | 19970305 | EP 1995-915185 | 19950404 | |
| EP 759899 | B1 | 19990915 | | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | | |
| HU 75961 | A2 | 19970528 | HU 1996-3107 | 19950404 | |
| BR 9507634 | A | 19970923 | BR 1995-7634 | 19950404 | |
| JP 09512798 | T2 | 19971222 | JP 1995-528615 | 19950404 | |
| AT 184589 | E | 19991015 | AT 1995-915185 | 19950404 | |
| ES 2139199 | T3 | 20000201 | ES 1995-915185 | 19950404 | |
| RU 2145595 | C1 | 20000220 | RU 1996-123280 | 19950404 | |
| US 5861426 | A | 19990119 | US 1997-737426 | 19970306 | |
| US 5780495 | A | 19980714 | US 1997-902570 | 19970729 | |
| GR 3032078 | T3 | 20000331 | GR 1999-403169 | 19991208 | |
| PRIORITY APPLN. INFO.: | | | | IT 1994-MI916 | 19940510 |
| | | | | IT 1994-MI1731 | 19940809 |
| | | | | GB 1993-20599 | 19931006 |
| | | | | WO 1995-EP1233 | 19950404 |
| | | | | US 1996-624508 | 19960405 |

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AB The title compds. AX1NO2 [A = R(COXu)t; t = 0, 1; u = 0, 1; X = O, (un)substituted NH or NR1c wherein R1c = alkyl; R = (un)substituted Ph, etc.; X = YO; Y = alkylene, cycloalkylene, oxyalkyl, etc.] (e.g., I), which inhibit cyclooxygenase, are prepared

L9 ANSWER 19 OF 19 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 123:82961 MARPAT
 TITLE: Preparation of organic nitrate esters having antiinflammatory and/or analgesic activity
 INVENTOR(S): Del Soldato, Piero

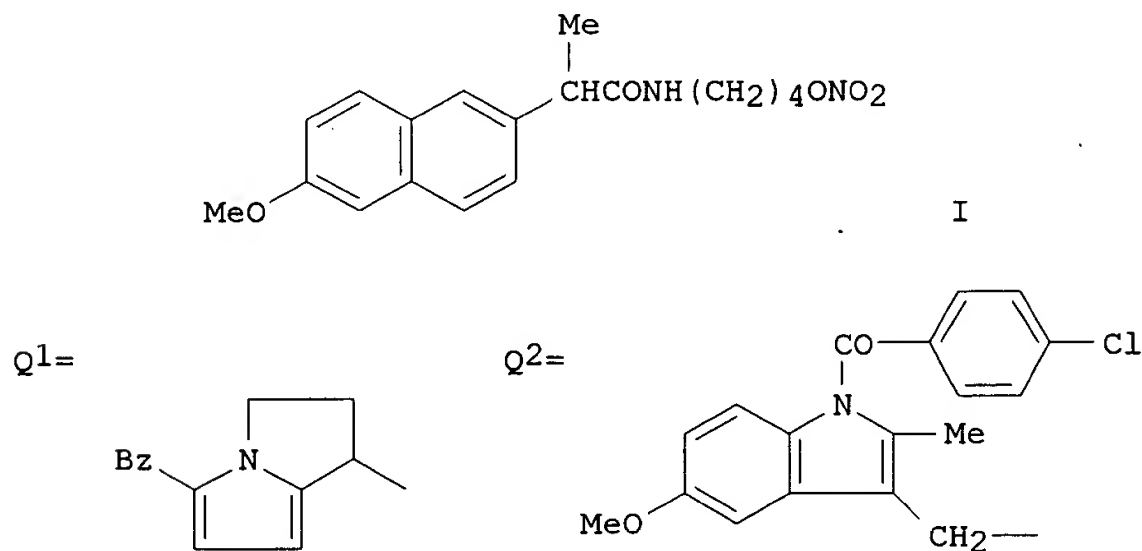
Searcher : Shears 571-272-2528

10/147770

PATENT ASSIGNEE(S): Nicox Ltd., Ire.
 SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9509831 | A1 | 19950413 | WO 1994-EP3182 | 19940923 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| GB 2283238 | A1 | 19950503 | GB 1993-20599 | 19931006 |
| GB 2283238 | B2 | 19971126 | | |
| CA 2173582 | AA | 19950413 | CA 1994-2173582 | 19940923 |
| AU 9478092 | A1 | 19950501 | AU 1994-78092 | 19940923 |
| AU 678063 | B2 | 19970515 | | |
| EP 722434 | A1 | 19960724 | EP 1994-928801 | 19940923 |
| EP 722434 | B1 | 19980729 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | |
| HU 74446 | A2 | 19961230 | HU 1996-874 | 19940923 |
| HU 218923 | B | 20001228 | | |
| BR 9407749 | A | 19970212 | BR 1994-7749 | 19940923 |
| JP 09503214 | T2 | 19970331 | JP 1994-510585 | 19940923 |
| AT 168986 | E | 19980815 | AT 1994-928801 | 19940923 |
| ES 2120070 | T3 | 19981016 | ES 1994-928801 | 19940923 |
| RU 2136653 | C1 | 19990910 | RU 1996-108907 | 19940923 |
| US 5700947 | A | 19971223 | US 1996-624508 | 19960405 |
| US 5780495 | A | 19980714 | US 1997-902570 | 19970729 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | GB 1993-20599 | 19931006 |
| | | | IT 1994-MI916 | 19940510 |
| | | | WO 1994-EP3182 | 19940923 |
| | | | US 1996-624508 | 19960405 |

OTHER SOURCE(S): CASREACT 123:82961
 GI



Searcher : Shears 571-272-2528

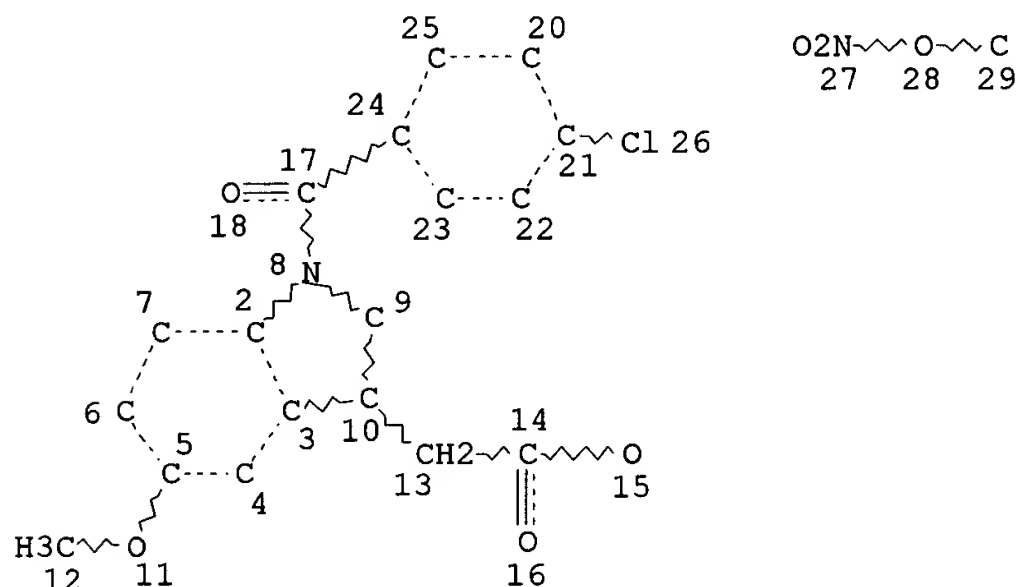
10/147770

AB The title compds. MCOY[C(A)(B)]nONO2 [A, B = H, (un)branched alkyl; M = Q1, Q2, 2-(6-methoxy)naphthyl, etc.; n = 1-10], useful as analgesics, antiinflammatory agents, and blood platelet aggregation inhibitors, are prepared Thus, 2-(6-methoxy-2-naphthyl)propionic acid was converted into its Na carboxylate salt with NaOEt, the salt condensed with 1-bromo-4-chlorobutane, and the 4-chlorobutyl 2-(6-methoxy-2-naphthyl)propionate intermediate nitrated by reaction with AgNO3, producing the 4-nitratobutyl ester, II.

FILE 'MARPATPREV' ENTERED AT 11:13:03 ON 22 APR 2005

L1

STR



NODE ATTRIBUTES:

NSPEC IS RC AT 29
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:

ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

L10 0 SEA FILE=MARPATPREV SSS FUL L1 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:13:36 ON 22 APR 2005)

L11 892 S "DEL SOLDATO P"?/AU
L12 216 S "SANNICOLO F"?/AU
L13 16 S L11 AND L12
L14 14 S (L11 OR L12) AND (BLADDER OR INCONTINENC?)
L15 28 S L13 OR L14
L16 15 DUP REM L15 (13 DUPLICATES REMOVED)

Author(s)

Searcher : Shears 571-272-2528

10/147770

L16 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2002:122770 CAPLUS

DOCUMENT NUMBER: 136:178015

TITLE: Drugs for **incontinence** - salified and nonsalified nitric oxide-donors and phosphodiesterase inhibitors

INVENTOR(S): **Del Soldato, Piero**; Benedini, Francesca

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2002011707 | A2 | 20020214 | WO 2001-EP8734 | 20010727 |
| WO 2002011707 | A3 | 20021205 | | |
| W: | AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| IT 1318674 | B1 | 20030827 | IT 2000-MI1848 | 20000808 |
| AU 2001091691 | A5 | 20020218 | AU 2001-91691 | 20010727 |
| EP 1307184 | A2 | 20030507 | EP 2001-971798 | 20010727 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| JP 2004511436 | T2 | 20040415 | JP 2002-517044 | 20010727 |
| US 2003203899 | A1 | 20031030 | US 2003-343330 | 20030206 |
| PRIORITY APPLN. INFO.: | | | IT 2000-MI1848 | A 20000808 |
| | | | WO 2001-EP8734 | W 20010727 |

OTHER SOURCE(S): MARPAT 136:178015

AB Use in the **incontinence** of one or more of the following classes of drugs selected from the following: (B) salified and nonsalified nitric oxide-donor drugs, of formula: A - X1 - N(O)z, (B') nitrate salts of drugs used for the **incontinence**, and which do not contain in the mol. a nitric oxide donor group; (C) organic or inorg. salts of compds. inhibiting phosphodiesterases.

L16 ANSWER 2 OF 15 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:283010 BIOSIS

DOCUMENT NUMBER: PREV200200283010

TITLE: Process for the preparation of a pharmacologically active chemical combination.

AUTHOR(S): **Sanniccolo', Francesco** [Inventor, Reprint author]; Benincori, Tiziana [Inventor]; **Del Soldato, Piero** [Inventor]

CORPORATE SOURCE: Milan, Italy
ASSIGNEE: Laboratori Alchemica S.r.l., Milan, Italy;
Nicox SA, Valbonne-Sophia Antipolis, France

Searcher : Shears 571-272-2528

PATENT INFORMATION: US 6369260 April 09, 2002

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 9, 2002) Vol. 1257, No. 2. <http://www.uspto.gov/web/menu/patdata.html>. e-file. CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 8 May 2002

Last Updated on STN: 8 May 2002

AB Process for the preparation of a pharmacologically active chemical combination constituted by the association, through chemical bonds, of units equal to one another, having each an own pharmacological activity, and with the general formula (I): M--A--X--B--M, where M indicates said unit having an own pharmacological activity, X indicates a "bidentate" structure suitable to interconnect the M units, A and B indicate functional groups either equal to or different from one another which allow the interconnection between M and X.

L16 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2002:196587 CAPLUS

DOCUMENT NUMBER: 137:27642

TITLE: Nitric-oxide releasing molecules: a new class of drugs with several major indications

AUTHOR(S): Burgaud, J. L.; Riffaud, J. P.; **Del Soldato, P.**

CORPORATE SOURCE: NicOx, Gaia II, Sophia-Antipolis, 06906, Fr.

SOURCE: Current Pharmaceutical Design (2002), 8(3), 201-213

CODEN: CPDEFP; ISSN: 1381-6128

PUBLISHER: Bentham Science Publishers

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Nitric oxide (NO) deficiency has been implicated in many pathol. and physiol. processes within the mammalian body providing a plausible biol. basis for the use of NO replacement therapy in these conditions. Exogenous NO sources may hopefully constitute a powerful way to supplement NO when the body cannot generate enough for normal biol. functions. This theory has opened up the possibility of designing new drugs that are capable of delivering NO into tissues and the bloodstream in a sustained and controlled manner. This objective has been reached by grafting an organic nitrate structure onto existing mols. with various spacers such as aliphatic or aromatic chain, with different degree of complexity. This approach has led to the synthesis of several new chemical entities in various pharmacol. classes, whose profile seems to challenge the parent drug not only on the basis of new pharmacol. properties but also on a better toxicol. and safety profile. In this article, general aspects on NO and NO donors are reviewed. Major focus is placed upon recent developments of novel NO donors, NO releasing device(s) as well as innovative improvements to conventional NO donors. Several examples are given in some important therapeutic indications such as cardiovascular diseases (NO-aspirin), pain and inflammation (NO-paracetamol), osteoporosis and urinary **incontinence** (NO flurbiprofen with aliphatic spacer), Alzheimer's disease (NO-flurbiprofen with anti-oxidant spacer), respiratory disorders (NO-steroids).

REFERENCE COUNT: 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/147770

L16 ANSWER 4 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2001-234905 [24] WPIDS
 DOC. NO. CPI: C2001-070327
 TITLE: New compounds including drug groups used for treating
 oxidative stress and/or endothelial disorders of
 moderate intensity.
 DERWENT CLASS: B05
 INVENTOR(S): DEL SOLDATO, P; DEL SOLDATA, P
 PATENT ASSIGNEE(S): (NICO-N) NICOX SA
 COUNTRY COUNT: 83
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|--|------|----------|-----------|----|-----|
| WO 2001012584 | A2 | 20010222 | (200124)* | EN | 93 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW | | | | | |
| MZ NL OA PT SD SE SL SZ TZ UG ZW | | | | | |
| W: AE AL AU BA BB BG BR CA CN CR CU CZ DM EE GD GE HR HU ID IL IN | | | | | |
| IS JP KP KR LC LK LR LT LV MA MG MK MN MX NO NZ PL RO SG SI SK | | | | | |
| TR TT UA US UZ VN YU ZA | | | | | |
| AU 2000065670 | A | 20010313 | (200134) | | |
| BR 2000013264 | A | 20020416 | (200234) | | |
| NO 2002000623 | A | 20020409 | (200238) | | |
| KR 2002032552 | A | 20020503 | (200270) | | |
| EP 1252133 | A2 | 20021030 | (200279) | EN | |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL | | | | | |
| PT RO SE SI | | | | | |
| IT 1314184 | B | 20021206 | (200317) | | |
| JP 2003515526 | W | 20030507 | (200331) | | 116 |
| HU 2002003939 | A2 | 20030328 | (200333) | | |
| ZA 2002000628 | A | 20030625 | (200348) | | 110 |
| CN 1433396 | A | 20030730 | (200365) | | |
| MX 2002001519 | A1 | 20030701 | (200366) | | |
| NZ 516889 | A | 20041029 | (200474) | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|------|----------------|----------|
| WO 2001012584 | A2 | WO 2000-EP7225 | 20000727 |
| AU 2000065670 | A | AU 2000-65670 | 20000727 |
| BR 2000013264 | A | BR 2000-13264 | 20000727 |
| | | WO 2000-EP7225 | 20000727 |
| NO 2002000623 | A | WO 2000-EP7225 | 20000727 |
| | | NO 2002-623 | 20020208 |
| KR 2002032552 | A | KR 2002-701883 | 20020209 |
| EP 1252133 | A2 | EP 2000-953102 | 20000727 |
| | | WO 2000-EP7225 | 20000727 |
| IT 1314184 | B | IT 1999-MI1817 | 19990812 |
| JP 2003515526 | W | WO 2000-EP7225 | 20000727 |
| | | JP 2001-516885 | 20000727 |
| HU 2002003939 | A2 | WO 2000-EP7225 | 20000727 |
| | | HU 2002-3939 | 20000727 |
| ZA 2002000628 | A | ZA 2002-628 | 20020123 |
| CN 1433396 | A | CN 2000-814049 | 20000727 |
| MX 2002001519 | A1 | WO 2000-EP7225 | 20000727 |
| | | MX 2002-1519 | 20020211 |
| NZ 516889 | A | NZ 2000-516889 | 20000727 |
| | | WO 2000-EP7225 | 20000727 |

Searcher : Shears 571-272-2528

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|-------------|---------------|
| AU 2000065670 | A Based on | WO 2001012584 |
| BR 2000013264 | A Based on | WO 2001012584 |
| EP 1252133 | A2 Based on | WO 2001012584 |
| JP 2003515526 | W Based on | WO 2001012584 |
| HU 2002003939 | A2 Based on | WO 2001012584 |
| MX 2002001519 | A1 Based on | WO 2001012584 |
| NZ 516889 | A Div in | NZ 535559 |
| | Based on | WO 2001012584 |

PRIORITY APPLN. INFO: IT 1999-MI1817 19990812

AN 2001-234905 [24] WPIDS

AB WO 200112584 A UPAB: 20030113

NOVELTY - New compounds (I) including drug groups are new.

DETAILED DESCRIPTION - Compounds of formula A-B-N(O)s (I) are new.

s = 1 or 2, preferably 2;

A = R-T1;

R = a drug group;

T1 = (CO)t or (X)t;

X = O, S or NR1c;

t, t' = 0 or 1;

provided that when t = 1 when t' = 0 and t = 0 when t' = 1;

B = TB-X2-O;

TB = CO when t = 0 or X when t' = 0;

X2 = a bivalent group such that the corresponding precursor TB-X2-OH of B does not meet test 5 and meets test 4A and TB = CO and t = 0, with the free valence of TB saturated with OZ or ZI-N(ZII) or TB = X and t' = 0 and the free valence of TB is saturated with H;

Z = H or R1a;

R1a = 1-10 (preferably 1-5)C alkyl and

ZI, ZII = a group Z;

provided that the drug A = R-T1, where the free valence is saturated when t' = 0, with OZ or ZI-N(ZII) and when t = 0 with X-Z meets at least one of tests 1-3.

Test 1 (NEM) is a test carried out in vivo on 4 groups of rats (each group containing 10 rats), the controls (2 groups) and the treated (2 groups) of which one group of the controls and one group of the treated respectively are administered with one dose of 25 mg/kg subcutaneously N-ethylmaleimide (NEM). The controls are treated with the carrier and the treated groups with carrier and drug A = R-T1 with saturated free valence. The drug is administered at a dose equivalent to the maximum dose tolerated by the rats that did not receive NEM. The drug can be used to prepare (I) when the group treated with NEM, carrier and drug shows gastrointestinal damage or in the group treated with NEM, carrier and drug are observed gastrointestinal damage greater than that of the group treated with carrier or of the group treated with the carrier and NEM.

Test 2 (CIP) is an in vitro test where human endothelial cells from the umbilical vein are harvested under standard conditions, then divided into 2 groups (each replicated 5 times), of which one is treated with a mixture of the drug 10⁻⁴ concentration in culture medium and the other group with carrier. Then cumene hydroperoxide (CIP) having 5 mM concentration in the culture medium is added to each group. The drug can be use to prepare (I) when a statistically

significant inhibition of the apoptosis induced by CIP is not obtained with p less than 0.01 with respect to the group treated with carrier and CIP.

Test 3 (l-NAME) is an in vivo test carried out on 4 groups of rats (each containing 10 rats) for 4 weeks and receiving drinking water, the controls (2 groups) and the treated (2 groups), of which 1 group of controls and of treated respectively receive in the above weeks water containing N- omega -nitro-L-arginine methyl ester (L-NAME) at a concentration of 400 mg/l. Controls in the 4 weeks are administered with carrier and the treated in the 4 weeks with carrier and drug, each once a day. The drug is administered at the maximum dose tolerated by the group of rats not pretreated with L-NAME. After 4 weeks, water supply is stopped for 24 hours and then the rats are sacrificed. Blood pressure is determined 1 hour before sacrifice. After sacrifice, the plasma glutamic pyruvic transaminase (GPT) is determined and the gastric tissue is examined. The drug can be used to prepare (I) when in group treated with L-NAME, carrier and drug, greater hepatic damage and/or cardiovascular damage are found in comparison respectively with the group treated with the carrier or carrier and drug or carrier and L-NAME.

Test 4A met by the compound precursor B is an in vitro test in which part of an erythrocyte suspension kept at 4 deg. C for 4 days and isolated from Wistar male rats and suspended in physiological solution buffered at pH 7.4 with phosphate buffer, is centrifuged at 1000 rpm for 5 minutes. 0.1 ml Centrifuged erythrocytes are diluted with sodium phosphate buffer pH 7.4 at 50 ml. Aliquots of 3.5 ml are taken and incubated at 37degC in the presence of cumene hydroperoxide at a concentration of 270 μ M and the suspension turbidity determined at 710 nm at intervals of 30 minutes to establish the time (T_{max}) at which occurs the maximum turbidity that corresponds to the maximum amounts of cells lysed by cumene hydroperoxide (haemolysis assumed to be 100%). Alcoholic solutions of the compounds precursors of B are added to 3.5 ml aliquots of the dilutes suspension of centrifuged erythrocytes to give a final concentration of 2 mM of the precursor of B. Resulting suspension is preincubated for 30 minutes. Cumene hydroperoxide is added to give the same above indicated final concentration and at T_{max} is determined the percentage of haemolysis inhibition in the sample from the ratio, multiplied by 100, between absorbance of sample containing erythrocytes, precursor of B and cumene hydroperoxide respectively and that of sample containing erythrocytes and cumene hydroperoxide. Precursors of B meet the test if they inhibit haemolysis induced by cumene hydroperoxide by more than 15%.

Test 5 is an analytical determination carried out by adding aliquots of 10^{-4} M methanol solutions of precursor B or B1 or of C = Tc-Y-H, having the free valence saturated, to solution formed by admixing 2 mM solution of deoxyribose in water with 100 mM phosphate buffer and 1 μ M $FeII(NH_4)_2(SO_4)_2$. After thermostating at 37 deg. C for 1 hour, aliquots of aqueous solutions of trichloroacetic acid (2.8%) and of thiobarbituric acid (0.5M) are added and heating is effected at 100 deg. C for 15 minutes. Absorbance of tested solutions is read at 532 nm. Inhibition induced by precursor B or B1 or C = Tc-Y-H in the confront of radical production by $FeII$ is calculated as a percentage by using $(1-A_s/A_c) \times 100$.

A_s and A_c are respectively absorbance values of solution containing tested compound and iron salt and that of solution containing iron salt. Test 5 is met when inhibition percentage is at least 50%.

In (I), when X2 of B is 1-20C alkylene or 5-7C cycloalkylene

(optionally substituted), the drugs of formula A = R-T1 with free valence saturated, do not belong to drugs used in **incontinence**, antithrombotic drugs (ACE inhibitors), prostaglandins and anti-inflammatory drugs (NSAIDs and corticosteroids), but not excluding paracetamol and sulindac.

N.B. The definitions given in the specification are not clear.

ACTIVITY - Antioxidant; cardiant; vasotropic; hypotensive; cerebroprotective; antiarteriosclerotic; antiarthritic; anti-inflammatory; neuroprotective; dermatological; antibacterial.

MECHANISM OF ACTION - None given.

USE - Used for treating oxidative stress and/or endothelial dysfunctions of moderate intensity, which cause myocardial and vascular ischemia, hypertension, stroke, arteriosclerosis, rheumatoid arthritis and connected inflammatory diseases, asthma and connected inflammatory diseases, ulcerative and non ulcerative dyspepsias, intestinal inflammatory diseases, Alzheimer's disease, impotence, **incontinence**, eczema, neurodermatitis, acne and infectious diseases.

ADVANTAGE - (I) Have higher efficacy and lower toxicity.

Dwg.0/0

L16 ANSWER 5 OF 15 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:426837 BIOSIS
DOCUMENT NUMBER: PREV200000426837
TITLE: Compounds and their compositions having anti-inflammatory and anti-thrombotic activities.
AUTHOR(S): Del Soldato, Piero [Inventor, Reprint author]; Sanniccolo, Francesco [Inventor]
CORPORATE SOURCE: Milan, Italy
ASSIGNEE: Nicox S.A., Paris, France
PATENT INFORMATION: US 6040341 March 21, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 21, 2000) Vol. 1232, No. 3. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Oct 2000
Last Updated on STN: 10 Jan 2002
AB Compounds and their compositions, of general formula: A--X1 --NO2 are used as medicaments wherein: A=R(COX)t t=0 or 1; X=O and the remaining substituents are defined in the specification.

L16 ANSWER 6 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2000-679460 [66] WPIDS
DOC. NO. CPI: C2000-206609
TITLE: New steroidal compounds for treating conditions associated with oxidative stress and endothelial dysfunction have improved tolerability.
DERWENT CLASS: B01
INVENTOR(S): DEL SOLDATO, P
PATENT ASSIGNEE(S): (NICO-N) NICOX SA
COUNTRY COUNT: 80
PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---------------|------|----------|-----------|----|-----|
| WO 2000061604 | A2 | 20001019 | (200066)* | EN | 102 |

Searcher : Shears 571-272-2528

10/147770

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW
NL OA PT SD SE SL SZ TZ UG ZW
W: AL AU BA BB BG BR CA CN CU CZ DM EE GE HR HU ID IL IN IS JP KP
KR LC LK LR LT LV MA MG MK MN MX NO NZ PL RO SG SI SK SL TR TT
UA US UZ VN YU ZA
AU 2000038201 A 20001114 (200108)
EP 1169337 A2 20020109 (200205) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL
PT RO SE SI
BR 2000009696 A 20020108 (200208)
NO 2001004925 A 20011213 (200211)
KR 2001108489 A 20011207 (200236)
IT 1311922 B 20020320 (200252)
HU 2002001872 A2 20021028 (200277)
JP 2002542162 W 20021210 (200301) 99
ZA 2001008124 A 20030326 (200327) 120
CN 1420891 A 20030528 (200357)
MX 2001010212 A1 20020901 (200370)
AU 766798 B 20031023 (200381)
NZ 514572 A 20040326 (200425)
AU 2004200263 A1 20040219 (200445)
EP 1169337 B1 20040825 (200456) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU MC NL PT RO SE
SI
DE 60013266 E 20040930 (200465)
EP 1475386 A2 20041110 (200473) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU MC NL PT SE
RU 2240325 C2 20041120 (200504)
ES 2226805 T3 20050401 (200524)

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|------------|----------------|----------|
| WO 2000061604 | A2 | WO 2000-EP3238 | 20000411 |
| AU 2000038201 | A | AU 2000-38201 | 20000411 |
| EP 1169337 | A2 | EP 2000-917075 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| BR 2000009696 | A | BR 2000-9696 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| NO 2001004925 | A | WO 2000-EP3238 | 20000411 |
| | | NO 2001-4925 | 20011010 |
| KR 2001108489 | A | KR 2001-712940 | 20011010 |
| IT 1311922 | B | IT 1999-MI751 | 19990413 |
| HU 2002001872 | A2 | WO 2000-EP3238 | 20000411 |
| | | HU 2002-1872 | 20000411 |
| JP 2002542162 | W | JP 2000-611546 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| ZA 2001008124 | A | ZA 2001-8124 | 20011003 |
| CN 1420891 | A | CN 2000-808774 | 20000411 |
| MX 2001010212 | A1 | WO 2000-EP3238 | 20000411 |
| | | MX 2001-10212 | 20011009 |
| AU 766798 | B | AU 2000-38201 | 20000411 |
| NZ 514572 | A | NZ 2000-514572 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| AU 2004200263 | A1 | AU 2004-200263 | 20040122 |
| EP 1169337 | B1 | EP 2000-917075 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| | Related to | EP 2004-102751 | 20000411 |

Searcher : Shears 571-272-2528

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| | | | |
|-------------|-----------|------------------|----------|
| DE 60013266 | E | DE 2000-00013266 | 20000411 |
| | | EP 2000-917075 | 20000411 |
| | | WO 2000-EP3238 | 20000411 |
| EP 1475386 | A2 Div ex | EP 2000-917075 | 20000411 |
| | | EP 2004-102751 | 20000411 |
| RU 2240325 | C2 | WO 2000-EP3238 | 20000411 |
| | | RU 2001-127575 | 20000411 |
| ES 2226805 | T3 | EP 2000-917075 | 20000411 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|------------------|---------------|
| AU 2000038201 | A Based on | WO 2000061604 |
| EP 1169337 | A2 Based on | WO 2000061604 |
| BR 2000009696 | A Based on | WO 2000061604 |
| HU 2002001872 | A2 Based on | WO 2000061604 |
| JP 2002542162 | W Based on | WO 2000061604 |
| MX 2001010212 | A1 Based on | WO 2000061604 |
| AU 766798 | B Previous Publ. | AU 2000038201 |
| | Based on | WO 2000061604 |
| NZ 514572 | A Based on | WO 2000061604 |
| AU 2004200263 | A1 Div ex | AU 766798 |
| EP 1169337 | B1 Based on | WO 2000061604 |
| DE 60013266 | E Based on | EP 1169337 |
| | Based on | WO 2000061604 |
| EP 1475386 | A2 Div ex | EP 1169337 |
| RU 2240325 | C2 Based on | WO 2000061604 |
| ES 2226805 | T3 Based on | EP 1169337 |

PRIORITY APPLN. INFO: IT 1999-MI751

19990413

AN 2000-679460 [66] WPIDS

AB WO 200061604 A UPAB: 20001219

NOVELTY - Steroidal compounds (I) and (II) are new.

DETAILED DESCRIPTION - Steroidal compounds of formula (I) and (II) and their salts are new.

s = 1 or 2;

b = 0 or 1;

A = radical obtained from a compound of formula (A);

B = TbX₂Tb₁;

Tb, Tc = CO (when the reactive function in the precursor steroid is OH) or X (when the reactive function in the precursor steroid is COOH);

X = O, S, NR_{1c} or absent;

R_{1c} = H or 1-5C alkyl;

Tb₁, Tc₁ = (CO)tx or (X)ty;

tx, ty = 0 or 1;

X₂ = divalent bridging group such that the corresponding B precursor meets test 4 or test 5 with free valences in Tb and Tb₁ being saturated with OZ, Z or NZZ;

Q = TcY and the Q precursor when b = 0 is TcYH with the Tc free valence saturated with OZ, Z or NZZ and meets test 5;

Tc, Tb₂ = CO (when tx = 0) or X (when ty = 0);

Y = (CR₃R₄)_nY₃(CR₅R₆)_nO, OR', (CH₂)_nPh(CH₂)_n1O, (CH(CH₂ONO₂)O)_nf, (CH(R_{f1})CH₂O)_nf or (CH₂CH(R_{f1})O)_nf;

Ph = phenylene optionally substituted by COOH;

n₈, n₉, n₃ = 0-3;

R₃-R₆ = H or 1-4C alkyl;

Y₃ = saturated, unsaturated or aromatic 5 or 6 membered

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nitrogenous heterocyclyl;

R' = 1-20C alkylene or 5-7C cycloalkylene (optionally with one or more C replaced by heteroatoms and optionally substituted by R1 (sic));

n31 = 1-3;

nf = 1-6; R1f = H or Me;

Q1 = Tc1Y1Tc2;

Y1 = as Y but with three free valences instead of two;

B1 = Tb2X2a;

X2a = monovalent radical such that the corresponding precursor TB2X2a meets test 4 or 5 and the Tb2 free valence is saturated with Z, OZ or NZZ;

Z = not defined;

V1, V4, V5, V10, V3a, V11a, V16a = H;

V2 = H, Cl or Br;

V3 = H, OCH2CH2Cl or OH;

V6 = H, Cl, F, Me or CHO;

V7 = H, Cl or OH;

V9 = H, Cl or F;

V11 = H, OH, Cl or Me;

V16 = Me or OH;

V17 = OH, Me, OCO(O)ua(CH2)vaMe, CCH or OCOfuran2-yl; or

V3+V3a, V11+V11a = 0;

or V16+V16a = CH2; or

V2+V3 = a group of formula (i);

V1+V2, V3+V4, V4+V5, V5+V6, V5+V10 = bond; or

V16+V17 = a group of formula (ii)-(iv);

R, R1 = H or 1-4C alkyl;

R2 = (COL)t(L)t2 (X1)t1;

t, t1, t2, ua = 0 or 1;

va = 0-4;

L = (CR4R5)na(O)nb(CR4R5)n1a(CO)nb(O)nb2(CO)nb3(CR4R5)na2;

na, na1, na2 = 0-6; nb, nb1, nb2 = 0 or 1;

R4, R5 = H or 1-5C alkyl;

X1 = O, S, NR1cl or bond;

R1cl = 1-10C alkyl, OH, Me (sic), Cl, NEt2, SCH2F, SH or 1-methyl-piperazin-4-yl;

test 4 = an analytical determination for a B or B1 precursor at 10-4M having an inhibition of equal to or greater than 50% for a 2,2-diphenyl-1-picryl hydrazyl (DPPH) free radical in methanol at room temperature in the absence of light for 30 minutes measured using absorbance at wavelength of 517 nm and calculated using the formula $(1-As/Ac) \times 100$;

test 5 = an analytical determination for a B, B1 or TcYH precursor of an inhibition concentration of greater than or equal to 50% for Fe (II) radical production by adding aliquots of a 10-4M methanolic solution of the precursor to a solution of 2 mM desoxyribose, in water with 100 mM phosphate buffer and 1 mM Fe (II) (NH4)2(SO4)2 at 37 deg. C for 1 hour, then treatment with aqueous trichloroacetic acid (2.8%) and then thiobarbituric acid (0.5 M), heating for 15 minutes at 100 deg. C and measuring absorbance at 532 nm using the formula $(1-As/Ac) \times 100$; As, Ac respectively = the absorbance values of the solution containing the test compound and DPPH (in test 4) or iron salt (in test 5) and absorbance in absence of test compound;

provided that (i) tx = 0 when ty = 1 and tx = 1 when ty = 0 (sic); (ii) t2 = 0 when t1 = 1 and t2 = 1 when t = 0; (iii) t and t1 or t2 and t1 are not both 0 when A does not contain OH; and (iv) compounds (I) in which b = 0, Q = TcY in which the free valence of Y

is saturated and s = 1 or 2 are excluded.

ACTIVITY - Antiinflammatory; Immunosuppressive; Cardiant; Hypotensive; Cerebroprotective; Antiarteriosclerosis; Antiarthritic; Antirheumatic; Antiasthmatic; Antiulcer; Nootropic; Uropathic; Dermatological; Antiacne; Antibacterial; Virucide.

Hepatic damage, determined by GPT assay for 3-(4-((3 alpha ,5 beta ,7 beta)-3,7-dihydroxycolan-24-oiloxy)-3-methoxyphenyl)-2-propenoic acid 4-nitroxybutyl ester (sic) (Ia) at 100 mg/kg i.p. in rats (not treated with L-NAME) was 103% GPT variation compared to 100% for control and 130% for ursodesoxycholic acid at 100 mg/kg i.p. The corresponding values for rats treated with L-NAME were 123%, 230% and 276% respectively.

MECHANISM OF ACTION - Antioxidant.

USE - For treating conditions associated with oxidative stress and/or endothelial dysfunction using steroids with antiinflammatory, immunodepressive, angiostatic and gastrointestinal activity. Example of pathological conditions caused by oxidative stress and/or endothelial dysfunction are e.g. cardiovascular system disorders (such as myocardial and vascular ischemia, hypertension, stroke and arteriosclerosis), connective tissue disorders (such as rheumatoid arthritis), pulmonary system disorders (such as asthma), gastrointestinal system disorders (such as ulcerative and non-ulcerative dyspepsias and intestinal inflammatory diseases), central nervous system disorders (such as Alzheimer's disease), urogenital system disorders (such as impotence and incontinence), cutaneous system disorders (such as eczema and acne) and infective diseases such as viral infection.

ADVANTAGE - Compounds have improved tolerability and/or efficacy compared to precursor steroids e.g. side effects on the liver are reduced.

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L16 ANSWER 7 OF 15 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2000-687027 [67] WPIDS
 DOC. NO. CPI: C2000-208962
 TITLE: Nitro or Nitroso derivatives are used in the treatment of oxidative stress and/or endothelial dysfunction, in the treatment of the cardiovascular system hypertension, arteriosclerosis, rheumatoid arthritis, and the gastrointestinal system.
 DERWENT CLASS: B05
 INVENTOR(S): DEL SOLDATO, P
 PATENT ASSIGNEE(S): (NICO-N) NICOX SA
 COUNTRY COUNT: 80
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|--|------|----------|-----------|----|-----|
| WO 2000061541 | A2 | 20001019 | (200067)* | EN | 138 |
| RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW | | | | | |
| NL OA PT SD SE SL SZ TZ UG ZW | | | | | |
| W: AL AU BA BB BG BR CA CN CU CZ DM EE GE HR HU ID IL IN IS JP KP | | | | | |
| KR LC LK LR LT LV MA MG MK MN MX NO NZ PL RO SG SI SK SL TR TT | | | | | |
| UA US UZ VN YU ZA | | | | | |
| AU 2000045474 | A | 20001114 | (200108) | | |
| EP 1169298 | A2 | 20020109 | (200205) | EN | |
| R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL | | | | | |
| PT RO SE SI | | | | | |
| BR 2000009703 | A | 20020108 | (200208) | | |

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| | | | | |
|---------------|----|----------|----------|-----|
| NO 2001004928 | A | 20011213 | (200211) | |
| KR 2002005668 | A | 20020117 | (200250) | |
| IT 1311923 | B | 20020320 | (200252) | |
| CN 1358178 | A | 20020710 | (200278) | |
| HU 2002000714 | A2 | 20021228 | (200308) | |
| JP 2002541236 | W | 20021203 | (200309) | 118 |
| ZA 2001008126 | A | 20030625 | (200348) | 156 |
| MX 2001010213 | A1 | 20020901 | (200370) | |
| NZ 514270 | A | 20040227 | (200418) | |
| RU 2237057 | C2 | 20040927 | (200468) | |
| AU 777579 | B2 | 20041021 | (200501) | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|------|----------------|----------|
| WO 2000061541 | A2 | WO 2000-EP3239 | 20000411 |
| AU 2000045474 | A | AU 2000-45474 | 20000411 |
| EP 1169298 | A2 | EP 2000-926870 | 20000411 |
| | | WO 2000-EP3239 | 20000411 |
| BR 2000009703 | A | BR 2000-9703 | 20000411 |
| | | WO 2000-EP3239 | 20000411 |
| NO 2001004928 | A | WO 2000-EP3239 | 20000411 |
| | | NO 2001-4928 | 20011010 |
| KR 2002005668 | A | KR 2001-712914 | 20011009 |
| IT 1311923 | B | IT 1999-MI752 | 19990413 |
| CN 1358178 | A | CN 2000-808491 | 20000411 |
| HU 2002000714 | A2 | WO 2000-EP3239 | 20000411 |
| | | HU 2002-714 | 20000411 |
| JP 2002541236 | W | JP 2000-610818 | 20000411 |
| | | WO 2000-EP3239 | 20000411 |
| ZA 2001008126 | A | ZA 2001-8126 | 20011003 |
| MX 2001010213 | A1 | WO 2000-EP3239 | 20000411 |
| | | MX 2001-10213 | 20011009 |
| NZ 514270 | A | NZ 2000-514270 | 20000411 |
| | | WO 2000-EP3239 | 20000411 |
| RU 2237057 | C2 | WO 2000-EP3239 | 20000411 |
| | | RU 2001-127574 | 20000411 |
| AU 777579 | B2 | AU 2000-45474 | 20000411 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|---------------|-------------------------------|--------------------------------|
| AU 2000045474 | A Based on | WO 2000061541 |
| EP 1169298 | A2 Based on | WO 2000061541 |
| BR 2000009703 | A Based on | WO 2000061541 |
| HU 2002000714 | A2 Based on | WO 2000061541 |
| JP 2002541236 | W Based on | WO 2000061541 |
| MX 2001010213 | A1 Based on | WO 2000061541 |
| NZ 514270 | A Based on | WO 2000061541 |
| RU 2237057 | C2 Based on | WO 2000061541 |
| AU 777579 | B2 Previous Publ. Based on | AU 2000045474 WO 2000061541 |

PRIORITY APPLN. INFO: IT 1999-MI752

19990413

AN 2000-687027 [67] WPIDS

AB WO 200061541 A UPAB: 20011105

NOVELTY - Nitro or Nitroso derivatives (I) and (II) and their salts

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are new.

DETAILED DESCRIPTION - Nitro or Nitroso derivatives of formula (I) and (II) and their salts are new.

s = 1-2;

bo = 0-1;

A' = R-T1-;

R = drug radical;

T1 = (CO)t or (X)t';

t, t' = 0-1;

X = O, S or NR1C;

R1C = H, 1-5C alkyl or a free valence;

B' = -TB-X2-TBI-

TB = (CO) when t = 0 or X when t' = 0;

TBI = (CO)tx or (X)txx;

tx, txx = 0-1;

X2 = bivalent bridging bond;

C' = -Tc-Y'-;

Tc = (CO) when tx = 0 or X when txx = 0;

Y' = a group of formula (a), R'O or 5-7C cycloalkylene optionally with one or more carbons replaced with heteroatoms and optionally substituted by R'';

n = 0-3;

m = 1-3;

RTIX = H or 1-4C alkyl;

Y3 = 5-6 membered (un)saturated or aromatic heterocyclic ring containing at least 1 N;

R' = 1-20C alkyl;

R'' = R' or a group of formula (b) - (e), -(CH(R1f)CH2O)nf or -(CH2CH(R11)O)nf;

Cl' = a group of formula (f);

TCI = CO when t = 0 or X when t' = 0;

TCII = CO or X;

Y'' = a group of formula (g) - (m) or 2-6C alkyl;

n3 = 0-3;

n3' = 1-3;

nf' = 1-6; and

R1f = H or CH3.

ACTIVITY - Cardiant; vasotropic; hypotensive, vasodilator; hypotensive; antiarteriosclerotic; antirheumatic; antiarthritic; antiinflammatory; gastrointestinal; antiulcer; nootropic; neuroprotective; cytostatic; dermatological; virucide; respiratory; beta blocker.

MECHANISM OF ACTION - No method of action given.

USE - (I) and (II) are used in the treatment of oxidative stress and/or endothelial dysfunction, in the treatment of the cardiovascular system e.g. myocardial and vascular ischemia, hypertension, stroke, arteriosclerosis, connective tissue e.g. rheumatoid arthritis, and connected inflammatory diseases, the gastrointestinal system e.g. ulcerative and nonulcerative dyspepsias, intestinal inflammatory diseases, central nervous system disorders e.g. Alzheimer's disease, the urogenital system e.g. impotence or incontinence, the cutaneous system e.g. eczema, neurodermatitis, acne and infectious diseases. (I) and (II) can also be used as antiinflammatories, beta blockers, bronchodilators, bone resorption inhibitor, phosphodiesterase inhibitors, antiallergics, anti-angiotensin drugs, antidiabetics, or anti tumoral drugs.

ADVANTAGE - (I) and (I) have an improved therapeutic index as compared to precursor drugs.

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L16 ANSWER 8 OF 15 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN

ACCESSION NUMBER: 1999:97107 BIOSIS
DOCUMENT NUMBER: PREV199900097107
TITLE: Nitro compounds of the formula A-X-1-NO-2 and their compositions having anti-inflammatory, analgesic and anti-thrombotic activities.
AUTHOR(S): Del, Soldato, P. [Inventor]; Sanniccolo, F. [Inventor]
CORPORATE SOURCE: Milan, Italy
ASSIGNEE: NICOX S.A.
PATENT INFORMATION: US 5861426 Jan. 19, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan. 19, 1999) Vol. 1218, No. 3, pp. 2230-2233. print.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

L16 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 1999:731703 CAPLUS
DOCUMENT NUMBER: 132:202450
TITLE: HCT-1026: Treatment of septic shock, treatment of urinary **incontinence**, treatment of osteoporosis, nitric oxide donor
AUTHOR(S): Burgaud, J. L.; Benedini, F.; Robinson, E. M.;
Del Soldato, P.
CORPORATE SOURCE: NicOx, Valbonne, 06560, Fr.
SOURCE: Drugs of the Future (1999), 24(8), 858-861
CODEN: DRFUD4; ISSN: 0377-8282
PUBLISHER: Prous Science
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 21 refs., describing the synthesis, pharmacol. actions, toxicity, and clin. uses of HCT-1026.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1998:175910 CAPLUS
DOCUMENT NUMBER: 128:217188
TITLE: Preparation of nitric ester derivatives and their use in urinary **incontinence** and other diseases
INVENTOR(S): Del Soldato, Piero; Sanniccolo', Francesco
PATENT ASSIGNEE(S): Nicox S.A., Fr.; Del Soldato, Piero; Sanniccolo', Francesco
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

10/147770

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9809948 | A2 | 19980312 | WO 1997-EP4774 | 19970902 |
| WO 9809948 | A3 | 19980604 | | |
| W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2264081 | AA | 19980312 | CA 1997-2264081 | 19970902 |
| AU 9743010 | A1 | 19980326 | AU 1997-43010 | 19970902 |
| AU 729533 | B2 | 20010201 | | |
| EP 931065 | A2 | 19990728 | EP 1997-919021 | 19970902 |
| EP 931065 | B1 | 20040728 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| BR 9712008 | A | 19990824 | BR 1997-12008 | 19970902 |
| CN 1234792 | A | 19991110 | CN 1997-199130 | 19970902 |
| JP 2000517332 | T2 | 20001226 | JP 1998-512226 | 19970902 |
| RU 2210563 | C2 | 20030820 | RU 1999-106676 | 19970902 |
| EP 1437132 | A1 | 20040714 | EP 2004-101544 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI | | | | |
| AT 271858 | E | 20040815 | AT 1997-919021 | 19970902 |
| EP 1473288 | A1 | 20041103 | EP 2004-102724 | 19970902 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI, RO | | | | |
| ES 2224237 | T3 | 20050301 | ES 1997-919021 | 19970902 |
| AU 764127 | B2 | 20030814 | AU 2001-38954 | 20010427 |
| US 2004082652 | A1 | 20040429 | US 2003-686907 | 20031017 |
| PRIORITY APPLN. INFO.: | | | IT 1996-MI1821 | A 19960904 |
| | | | AU 1997-43010 | A3 19970902 |
| | | | EP 1997-919021 | A3 19970902 |
| | | | WO 1997-EP4774 | W 19970902 |
| | | | US 1999-147770 | A3 19990428 |

OTHER SOURCE(S): MARPAT 128:217188

AB R(COX)tX1NO2 [I; R = e.g., residue of non-steroidal antiinflammatory agent; X = O or (alkyl)imino; X1 = e.g., ZCH2O; Z = 1,3-phenylene], displaying cyclooxygenase inhibiting and myorelaxing effect related to opening of Ca channels and/or release of NO in lower urinary tract, were prepared. Thus, flufenamic acid was esterified by 3-(HO)C6H4CH2ONO2 to give 3-(F3C)C6H4NHZ1CO2C6H4(CH2ONO2)-3 (Z1 = 1,2-phenylene). Data for biol. activity of I were given.

L16 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 1997:397389 CAPLUS

DOCUMENT NUMBER: 127:17490

TITLE: New acyloxybenzoate nitrate esters and their compositions having anti-inflammatory and anti-thrombotic activities

INVENTOR(S): Del Soldato, Piero; Sannicolo', Francesco

PATENT ASSIGNEE(S): Nicox S.A., Fr.; Del Soldato, Piero; Sannicolo',

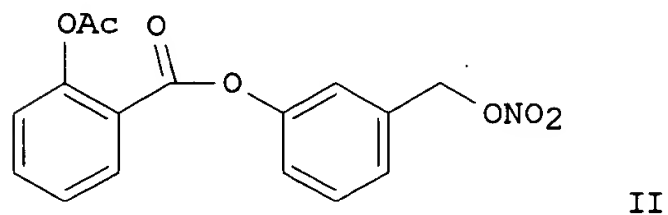
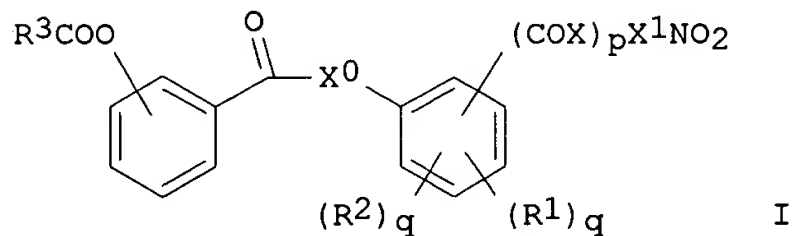
Searcher : Shears 571-272-2528

10/147770

SOURCE: Francesco
PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 9716405 | A1 | 19970509 | WO 1996-EP4696 | 19961029 |
| W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2235996 | AA | 19970509 | CA 1996-2235996 | 19961029 |
| AU 9674950 | A1 | 19970522 | AU 1996-74950 | 19961029 |
| AU 709338 | B2 | 19990826 | | |
| EP 871606 | A1 | 19981021 | EP 1996-937282 | 19961029 |
| EP 871606 | B1 | 20000614 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, FI | | | | |
| BR 9611175 | A | 19990330 | BR 1996-11175 | 19961029 |
| JP 11514636 | T2 | 19991214 | JP 1996-517060 | 19961029 |
| AT 193883 | E | 20000615 | AT 1996-937282 | 19961029 |
| ES 2148808 | T3 | 20001016 | ES 1996-937282 | 19961029 |
| PT 871606 | T | 20001130 | PT 1996-937282 | 19961029 |
| RU 2165921 | C2 | 20010427 | RU 1998-110565 | 19961029 |
| US 6040341 | A | 20000321 | US 1998-66344 | 19980429 |
| GR 3033827 | T3 | 20001031 | GR 2000-401528 | 20000630 |
| PRIORITY APPLN. INFO.: | | | IT 1995-MI2263 | A 19951031 |
| | | | WO 1996-EP4696 | W 19961029 |

OTHER SOURCE(S): MARPAT 127:17490
GI



AB The title compds. and their compns. are disclosed, specifically the compds. I or their salts [wherein p, q = 0, 1; X = O, NH, alkylimino, [CH₂CH(ONO₂)CH₂O]_n, [CH₂CH(R_{2a})O]_n; R_{2a} = H, Me; X₀ = X; R₁ = certain acyloxy; R₂ = H, OH, halo, alkyl, alkoxy, perfluoroalkyl, NO₂, (di)(alkyl)amino; or R₁R₂ = OCH₂O; R₃ = alkyl; X₁ = bivalent linking group chosen from YO or [CH₂CH(R_{2a})O]_n(YO)_m; Y = (un)substituted linear or branched C₁-20 alkylene or C₅-7 cycloalkylene; n = 1-6; m = 0 or 1]. The compds. are cyclooxygenase inhibitors, and have good antiinflammatory activity combined with low toxicity. For instance, 3-HOC₆H₄CH₂OH reacted with 48% HBr to give 3-HOC₆H₄CH₂Br, which reacted with AgNO₃ in MeCN to give 3-HOC₆H₄CH₂ONO₂. The latter reacted with 2-AcOC₆H₄COCl and K₂CO₃ in EtOAc to give title compound II. At 10⁻⁴ M in vitro, II reduced piastrinic aggregation induced by arachidonic acid to 0% of control, vs. only 50% for the known agent 2-AcOC₆H₄CO₂(CH₂)₄ONO₂ (preparation given). No acute toxicity was observed for either compound in rats at an oral dose of 200 mg/kg.

L16 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
 ACCESSION NUMBER: 1998:108659 CAPLUS
 DOCUMENT NUMBER: 128:212528
 TITLE: NCX-4016. Antiinflammatory analgesic antithrombotic
 AUTHOR(S): Cirino, Giuseppe; Calignano, Antonio; Sanniccolo, Franco; Prinavera, Angelo; Del Soldato, Piero; Wallace, John L.
 CORPORATE SOURCE: Dept. of Experimental Pharmacology, University of Naples, via Domenico Montesano 49, Naples, 80131, Italy
 SOURCE: Drugs of the Future (1997), 22(11), 1231-1233
 CODEN: DRFUD4; ISSN: 0377-8282
 PUBLISHER: J. R. Prous, S.A.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 AB A review with 18 refs.
 REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
 ACCESSION NUMBER: 1998:272236 CAPLUS
 DOCUMENT NUMBER: 129:35946
 TITLE: Gastrointestinal-sparing anti-inflammatory drugs: the development of nitric oxide-releasing NSAIDs
 AUTHOR(S): Wallace, John L.; Elliott, Susan N.; Del Soldato, Piero; Mcknight, Webb; Sanniccolo, Franco; Cirino, Giuseppe
 CORPORATE SOURCE: Department of Pharmacology, The University of Calgary, Calgary, AB, T2N 4N1, Can.
 SOURCE: Drug Development Research (1997), 42(3/4), 144-149
 CODEN: DDREDK; ISSN: 0272-4391
 PUBLISHER: Wiley-Liss, Inc.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 AB A review with 36 refs., nonsteroidal anti-inflammatory drugs (NSAIDs) are among the most widely prescribed medications, but their use continues to be limited by significant toxicity, particularly in the gastrointestinal tract and kidney. Better understanding of the pathogenesis of these adverse effects has led to the development of a series of derivs. of standard NSAIDs that are not only less toxic but more

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efficacious. The coupling of a nitric oxide-releasing moiety to a range of NSAIDs greatly reduces their ability to induce gastrointestinal damage, and greatly increases their tolerability in situations in which there is preexisting gastrointestinal inflammation. There is also evidence that these compds. are much better tolerated by the kidney. On the other hand, the analgesic and anti-thrombotic properties of NO-releasing NSAIDs significantly exceed those of the parent drugs. These compds. appear to represent a significant advance in the treatment of inflammation and pain and for prophylaxis of thrombotic conditions.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 1996:473193 CAPLUS

DOCUMENT NUMBER: 125:114476

TITLE: Preparation of diol bis-(benzoates or heterocyclylcarboxylates) as antiinflammatory agents and platelet aggregation inhibitors

INVENTOR(S): Del Soldato, Piero; Sanniccolo, Francesco; Benincori, Tiziana

PATENT ASSIGNEE(S): Laboratori Alchemia S.R.L., Italy

SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|-------------|
| WO 9615809 | A2 | 19960530 | WO 1995-EP4556 | 19951120 |
| WO 9615809 | A3 | 19961017 | | |
| W: | AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ | | | |
| RW: | KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| AU 9641741 | A1 | 19960617 | AU 1996-41741 | 19951120 |
| EP 793507 | A2 | 19970910 | EP 1995-940211 | 19951120 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | |
| EP 1038534 | A2 | 20000927 | EP 2000-105715 | 19951120 |
| EP 1038534 | A3 | 20010404 | | |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE | | | |
| US 6369260 | B1 | 20020409 | US 1997-836756 | 19970516 |
| PRIORITY APPLN. INFO.: | | | IT 1994-MI2362 | A 19941122 |
| | | | EP 1995-940211 | A3 19951120 |
| | | | WO 1995-EP4556 | W 19951120 |

OTHER SOURCE(S): MARPAT 125:114476

AB The title compds. M-A-X-B-M [I; M = 2-AcOC6H4CO; 3-(PhCO)C6H4CH(Me)CO; etc.; A, B = O, S, NH, CO, etc.; X = alkylidene, phenylene,

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piperazino, etc.], useful as antiinflammatory, antiarthritic, antiedemigenic, antihypertensive agents and platelet aggregation inhibitors, were prepared Treatment of flurbiprofen [3,4-F(Ph)C₆H₃CH(Me)CO₂H] with NaOMe followed by reaction with Br(CH₂)₄Br in DMF afforded I [M = 3,4-F(Ph)C₆H₃CH(Me)CO; A = B = O; X = (CH₂)₄] which showed the antiedemigenic activity of 0.8 vs. 1 for flurbiprofen.

L16 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
 ACCESSION NUMBER: 1996:163887 CAPLUS
 DOCUMENT NUMBER: 124:201789
 TITLE: Preparation of aryl nitrate ester compounds having antiinflammatory ans well as analgesic and antithrombotic activities
 INVENTOR(S): Del Soldato, Piero; Sanniccolo', Francesco
 PATENT ASSIGNEE(S): Nicox Ltd., Ire.
 SOURCE: PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

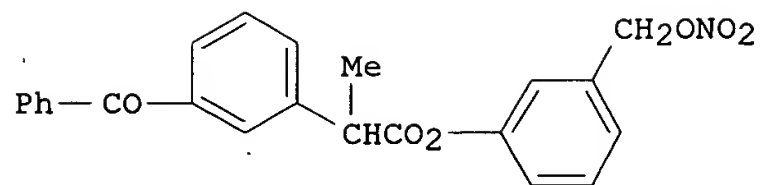
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9530641 | A1 | 19951116 | WO 1995-EP1233 | 19950404 |
| W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| CA 2190087 | AA | 19951116 | CA 1995-2190087 | 19950404 |
| AU 9522156 | A1 | 19951129 | AU 1995-22156 | 19950404 |
| AU 702662 | B2 | 19990225 | | |
| EP 759899 | A1 | 19970305 | EP 1995-915185 | 19950404 |
| EP 759899 | B1 | 19990915 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | |
| HU 75961 | A2 | 19970528 | HU 1996-3107 | 19950404 |
| BR 9507634 | A | 19970923 | BR 1995-7634 | 19950404 |
| JP 09512798 | T2 | 19971222 | JP 1995-528615 | 19950404 |
| AT 184589 | E | 19991015 | AT 1995-915185 | 19950404 |
| ES 2139199 | T3 | 20000201 | ES 1995-915185 | 19950404 |
| RU 2145595 | C1 | 20000220 | RU 1996-123280 | 19950404 |
| US 5861426 | A | 19990119 | US 1997-737426 | 19970306 |
| US 5780495 | A | 19980714 | US 1997-902570 | 19970729 |
| GR 3032078 | T3 | 20000331 | GR 1999-403169 | 19991208 |
| PRIORITY APPLN. INFO.: | | | IT 1994-MI916 | A 19940510 |
| | | | IT 1994-MI1731 | A 19940809 |
| | | | GB 1993-20599 | A 19931006 |
| | | | WO 1995-EP1233 | W 19950404 |
| | | | US 1996-624508 | A3 19960405 |

OTHER SOURCE(S): MARPAT 124:201789

Searcher : Shears 571-272-2528

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AB The title compds. AX₁NO₂ [A = R(COX_u)_t; t = 0, 1; u = 0, 1; X = O, (un)substituted NH or NR_{1c} wherein R_{1c} = alkyl; R = (un)substituted Ph, etc.; X = YO; Y = alkylene, cycloalkylene, oxyalkyl, etc.] (e.g., I), which inhibit cyclooxygenase, are prepared

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ACT MITCH147/A

L1 STR
L2 12 SEA SSS FUL L1

D QUE STAT

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L5 9 SEA ABB=ON PLU=ON L2
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D 1-3 IBIB ABS

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L8 0 SEA SSS SAM L1 (MODIFIED ATTRIBUTES)
L9 19 SEA SSS FUL L1 (MODIFIED ATTRIBUTES)
D QUE STAT
D 1-19 .BEVMAR1

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L10 0 SEA SSS FUL L1 (MODIFIED ATTRIBUTES)
D QUE STAT

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JICST-EPLUS, JAPIO' ENTERED AT 11:13:36 ON 22 APR 2005
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L12 216 SEA ABB=ON PLU=ON "SANNICOLO F"?/AU
L13 16 SEA ABB=ON PLU=ON L11 AND L12
L14 14 SEA ABB=ON PLU=ON (L11 OR L12) AND (BLADDER OR INCONTINEN
C?)
L15 28 SEA ABB=ON PLU=ON L13 OR L14
L16 15 DUP REM L15 (13 DUPLICATES REMOVED)
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